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as cause of disease and sickness. Any item or activity which has religious base takes more time, and requires more efforts for undergoing change, including replacement. This is because the religion forms a sensitive area involving emotions, feelings and sentiments which are hard to change. Of their own, the tribals expressed the least desire to take up the new and abandon the the old. Such a position was maintained for diverse reasons, including the social, economic and psychological ones. Thus, the culture contact and alien conditions failed to have a significant impact on the existing and ongoing ideas and activities connected to health and disease. Some tribals, however, do visit Primary Health Centres, specially when the primary avenues of cure fail to meet their requirement. As per their attitude and outlook, the majority of tribals give only a secondary place to the Primary Health Centres. Even while discussing the concept of disease and cure, the tribals keep mainly confined to the supernaturals.

The modern medical science and knowledge explain of the scientific concepts for various kinds of diseases and cure. On the other hand the tribals search them in the world of supernaturals. Apparently, the gap between the two sounds unbridgeable. Nowhere the two seem to come closer. The tribals themselves may support for the rationality of their arguments. Each holds a strong faith in its own techniques, procedures and prescriptions. At the same time the rapport of the traditional medicineman and other religious specialists is well solidified at local level. They, themselves, would not like to be disturbed in terms of their social status and economic position. On the other hand, the carriers of health programme have not been able to create an equation of confidence with the tribals. They are also not bothered for their socio-economic position, even if the programme is heading to failure front. Failure or success does not affect them much. As such, they take things easy. The prevalence of this kind of attitude poses for a challenge to the agencies and institutions meant to bring about

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N. N. Vyas
Principal

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INTRODUCTION

Village India is predominantly characterized by two major sections of the population, that is, the castes and the tribes. The caste society of India is typical of its own kind and includes the large chunk of population usually classified into the upper, middle and the lower caste segments. The so called 'twice-borns' belong to the upper segment, the artisans and the occupational castes come in the middle segment, and the Scheduled Castes and untouchables occupy the lower segment. Most of the village communities are represented through such segments with set patterns, defined under the caste norms, of human actions and interactions. By and large the tribes do not find a regular place in the caste segments; exceptions being some who, since their close contact with caste society, claim to have social positions at certain specific levels. The background of such a claim is 'Sanskritization'. But how far the caste groups accept such a claim is yet to be resolved. Otherwise, the tribes have their independent identity which is explained and represented through various life-designs of the people. In terms of numerical strength, the tribal section is far smaller in comparison to one of the castes. But when viewed through the problem perspective, the tribals take lead over others. A variety of problem continue to mark tribal India, inspite of the initiation of certain efforts for tribal development

One of the major social problems concerns the health and sickness in tribal society. To some it may, however, appear as secondary when compared to the acute problems of tribal economy. But then one should not forget that the healthy conditions are a prerequisite, in addition to some others, even for economic betterment. Other things may not take off, as desired, under the unhealthy conditions prevalent in a society. This holds true for any society, tribal or non-tribal. For certain reasons, the disease and sickness, prevalent in tribal communities, could not get the due

attention. Equally responsible for this are the 'insiders', that is, the tribals themselves, and the 'outsiders', that is, those engaged in the task of tribal betterment, as also other with whom the culture contact has been established. Persistence of problems, related to health, thus, is a wide-spread feature in tribal society. And for that matter, the Rajasthan tribes, for whom the present exercise has been made, are no exception. Different kinds of diseases and the causes of sickness are reported among the tribals. More popular of these, among the Rajasthan tribes, are the tuberculosis and the venereal diseases. This does not, however, undermine the importance of other diseases which also need to be attended to.

Like certain other diseases, say malaria, small-pox etc., the programmes at the national and state levels were also initiated to control tuberculosis and venereal disease. This is applicable to both, the caste as well as the tribal societies. But somehow the involvement, in such programmes, of tribals remained of a very low degree. This can again partly be attributed to the reservations of the tribals themselves, and partly to the constraints of those who carry out this programme. As such the sufferings, caused by tuberculosis and venereal disease, largely perpetuated among the tribals. In certain areas these have assumed alarming form, whereas in others it is not a matter of very great concern. However, looking to the prevalence of tuberculosis and venereal disease among the tribes of Rajasthan, there is mounting need of more intensive efforts for their adequate control and eradication. There is growing need for intensification of in-put efforts before the situation goes far beyond control.

It appears that the problems of tuberculosis and the venereal disease are yet to be hit even at the level of proper awareness of the tribals. To cause valid awareness is not an easy task. It can be better attempted through empirical researches in the context of tuberculosis and venereal disease. How the tribals take

it, how do they attribute the cause of it, and how they have learnt to put up with it are some of the basic queries to be made. And it is chiefly through the scientific empirical researches that one can gather accurate responses to the above. Extending of modern medical facilities is only one side of the issue. And the requisite success may not be achieved unless the other side, that is, how the tribals themselves view the whole thing, is explored and made known, in proper form, to the carriers of health programme. The change agents, in the field of health, need to come closer to, and get familiar with the native ways as applicable to their specialized aspect of programme. Without attending to the gaps in the thinking of two, one may not strike at the right place. The target population should not be underestimated as regards their say. The need is for compromise between the explanations of target audience and the carriers of medical facilities under the programme of induced social change. A common meeting platform for the 'insiders' views needs to be prepared and respected. It is presumed by a large number of social analysts that there has most of the time, been shown ignorance to the local thinking and ways of the tribals. Thus the one-sided efforts of the agents of change, in the field of health, did not help get the expected result. This led to the continuity of problems of tuberculosis and venereal disease. Certain other favourable situations rather helped further flare up of the sufferings. This, however, does not support that no headway could be made in this aspect of health programme.

In order to provide further impetus to the implementation of programme of health, specially concerning tuberculosis and venereal disease, the Tribal Research Institute under the Tribal Area Development Department of Government of Rajasthan made a special attempt by organising a two day workshop at Udaipur. The workshop provided an interdisciplinary forum to discuss the problem of tuberculosis and venereal disease among the tribes of Rajasthan.

The workshop was attended by sociologists, anthropologists, medical officers, administrators and others interested in such an exercise. The participants, through paper presentation and even otherwise, focused on the problem with special background and knowledge of their respective field. The specialists, of varied nature, put forth their arguments highlighting on general as well as specific dimensions of tuberculosis and venereal disease. A special credit to the organisers of the workshop goes in the sense that the exercise proposed by them brought, sufficiently closer, the viewpoints of social scientists, administrators and the men of medicines. The problem was analysed from diverse angles, followed by the emergence of certain decisions commonly agreed upon. This was thought essential for providing further fillip to the existing efforts for controlling tuberculosis and venereal disease. Operations of the agents of change, in respect of programme of health, in isolation of the observation of social scientists remain only a half-exercise. The exposition of barriers, which the tribals and their culture pose to the efforts of medical professionals, has a significant place at various stages of the change process. And the social scientists are better equipped, in comparison to others, to do this job. The medical professionals and administrators came out with own difficulties at practical level. But the combined gathering helped tackle the difficulties in the way appropriate to enhance the effectivity and force of the programme of tuberculosis and venereal disease.

Quite an important place in the study and analysis of tribal problems can be given to the situation of culture contact. The contact of tribals with the non-tribal communities around opened way to the process of acculturation. Many culture traits and elements were borrowed chiefly from the dominant groups. The borrowing included even the vices. In many a cases the dominant groups exploited morally, socially and economically the weaker and

ignorant groups. This not only helped aggravate the existing problems but also gave rise to new ones unheard in the situation of isolation. Mostly, the tribals occupied the interior and more isolated areas of the hills and forests. But gradually the non-tribals, in various forms, penetrated deep into such areas and established contact with the tribals. The planned contact is a phenomenon of recent past, but the non-planned contact got well established in the long past. The expanded network of communication further bridged the gap between tribals and non-tribals. In case of Rajasthan, the tribal-nontribal contact is centuries old. New avenues, opening and opportunities further consolidated the contact. It was in the background of unplanned culture contact that the degeneration of social, economic and moral life of the tribals started. The development of urban centres, through industrialization or otherwise, in tribal region, led to immoral traffic, and at times almost to prostitution. The tribal females, for petty gains, were exploited sexually. Industrialization and mining activities in the tribal belt provided further opportunities for sexual activities. The tribal females, with the least restrictions on sex, became easy prey to outsiders. Increase in the intensity of highway traffic, in and along tribal areas, also attracted the outsiders towards tribal women. The women from the broken families, and others in economic need and those who get fascinated to alien articles, fell easy prey to the non-tribals. Likewise the mining centres provided ample opportunities for indulgence in sex. Many a times there have been temporary population migrations to the sites of work of industrial and irrigation projects. And the labour force mainly consisted of the tribals. This also created opportunity for wider sexual indulgence in sex. Many a times there have been temporary population migrations to the sites of work of industrial and irrigation projects. And the labour force mainly consisted of the tribals. This also created opportunity for wider sexual indulgence. Labour camps, including the drought relief ones, also created favourable

conditions to sex exploitation. Most of the time the victims were the tribal females. Such a mixing at sexual level was conducive to the spread of venereal disease. Further, it was through such centres that the exciting pornographic literature reached to the tribals. Simultaneously, the expectations of the tribal women increased, which they failed to manage within their own means. Some of their requirements were met by others who exchanged it with sex. The venereal disease contacted by the women was subsequently passed on to the tribal male partners.

As the activity, most of the time, went on secretly, it did not become a point of greater concern. The tribal females never created fuss out of it as there was economic gain involved. Others kept quiet as it was meeting their sex requirement. The tribal men were not fussy as the sex, in their society, hardly assumed any significant sanctity. The secrecy of irregular sexual connections further prohibited the men and the women to divulge the disease which many of them carried. Rather, they would go in for further intercourse with new persons passing on the disease to them. Therefore, instead of keeping a check on the disease, it went on spreading. A large number of men and women went on carrying the disease without disclosing it to anyone. In addition to fear against certain personal material gains, the occurrence of disease was not disclosed for certain other socio-psychological reasons. Firstly, the tribals are shy by nature and, thus, they do not easily disclose such a secret disease to others, especially the outsiders. They are scared presuming that the outsiders might ask them the source of contacting such a disease. And if it is done, it might be difficult for them to reply as it may lead to the leaking out of a wide racket. They are, therefore, most hesitant to contact a qualified doctor. One may, however, contact a doctor when the disease goes beyond tolerance. Secondly, the tribals do not normally disclose such a disease to the member of their own group for the reason that it may bring social stigma to them. The moment others,

in the group, come to know that a person is suffering from venereal disease, his image is lowered. Simultaneously to the assigning of social stigma, the person's doors for sexual indulgence get closed. Others would not normally accept him or her for the purpose. Therefore, the fear of social stigma makes the person keep his disease as guarded secret in the group. Such a trend is again supportive to the spread of disease. The disease may, however, be disclosed in its last stage when the person is not in position to contain the same. By that time he or she has infected many others. The tribals are not only purposefully negligent in reporting of the disease, they intentionally express their ignorance of its source even when they are fully aware of the same. Such a non-reporting can also be attributed to social constraint. And as long as the sources of dissemination are not disclosed, the control enforcing may not be adequate and effective. By and large the tribals, as far as possible, put up with the disease, and ignore it for certain socio-psychological consideration. Under such a condition, they even go in for sexual intercourse infecting others who cohabit with them, without being fully aware of the disease and its consequences. It may be mentioned that the social and psychological considerations, for not disclosing the disease, also apply to the case of tuberculosis. A person, suffering from tuberculosis does not easily disclose it for fear of stigma.

When the sufferings from the disease become intolerable, the sufferer decides to approach Bhopa, the traditional religious priest, medicine man and witch doctor. Almost every tribal village has one Bhopa, if not more. The Bhopas have been, for centuries, treating the tribals for various kinds of ailments. Even after the establishment of Primary Health Centres in tribal areas, the Bhopa continues to influence the majority of population. His services are immediately available at village level. As per the world-view of tribals, most of the diseases, are caused by the supernaturals in the event of latter being angry. Even the

tribal life, in general, is extremely influenced by the world of supernaturals. And most of the major events are attributed to the same. When the source of disease and sickness lies in supernaturals, its remedy is also sought from the same source. The Bhopa is believed to be in possession of power that can control the supernaturals. Such a power, as is believed by the tribals, rests in him because of his contact with the supernaturals. A common belief is that a Bhopa can prevail upon both, the malevolent as well as the benevolent spirits. As such he is the only person who can manage to get rid off a disease and its sufferings. With this assumption in view the people express full confidence in him. He is highly respected in the community, and is an influential person. His words carry sufficient weight, and if he comes in opposition to the agents of change, concerning programme of health, it may really be difficult to get the things done. But if he is helpful, innovations can easily be made acceptable. Even when certain diseases are not cured by Bhopa, the tribals do not give up hopes. They may be told of some explanation which would convince them of the inaction. For most of the diseases, including tuberculosis and venereal disease, the Bhopa adopts a common course to get at the cure. His procedure for identification of cause of disease is almost uniform, though his prescriptions do vary. And the sufferer and his family go in for whatever is suggested and prescribed. Normally, it is only after the Bhopa expresses his inability to cure that the patient is referred to a qualified doctor. And this is something which a Bhopa does not easily resort to. Such a delay in the case further spoils it. Moreover the infection chances persist affecting others in the near vicinity.

The tuberculosis and venereal diseases are also linked to the economic position of the tribals. The economic resources in tribal areas, specially those which have been exploited by the tribals, are limited and meagre. Even

the means of resources exploitation are scarce with the tribals. Of their own, the tribals have not been able to make full use of the existing resources. They have technological and other limitations. Most of the time is experienced the paucity of funds. Majority of them continue to remain at subsistence level. In absence of commercial economy, the surplus, and hence the provision of funds, is not practicable. Thus, low level of technology, scarce means, limited resources, ideological and knowledge reservations, ignorance, and the superstition-dominated outlook contribute, among other things the low level of socio-economic living. Prevalent in most of the tribal areas are the poor socio-economic conditions which are quite favourable to tuberculosis. Malnutrition and under-nourishment are widely prevalent in tribal belt. For economic constraints the tribals cannot afford to have proper nutrition. On many occasions some of them have to go without meals. Excessive fatigue, while working, makes them exhausted. Climate of this kind is explained to be favourable to tuberculosis. In more exposed areas where contact with the outsiders has become frequent and deep, the new requirements, in addition to the old and traditional ones, have created increasing demand for money. And it is difficult to manage for the same from within. The increasing economic pressure and the alien allurements, have made many tribal females go in for sex with the non-tribals. The latter, in return, manage to provide for immediate economic relief. Earning through sex has probably been found easier by the tribal women, without realizing that it can cause heavily on their health. Sexual indulgence of this kind has also subscribed to the spread of venereal disease. Further, it may keep on increasing with indiscriminate sexual indulgence.

Connected to the above, and promoting its cause, are certain other ways prevalent in tribal society. One of these is the freedom

of sex. In comparison to the caste society of India, the tribals, by and large, are more liberal to sex. Impositions on sex are of the least order. Essentially, it is the privilege of group members, and is regulated by certain prescribed norms. There is no state of promiscuity as such, but the sex laxity prevails all around. When the sex sanctity is not given much of recognition, people, many a time, do not even hesitate to get involved in sex even with those outside the group, though the same may not fall within the norm-complex of tribal group. The tribal society of Rajasthan specially the Bhils, is known for freedom of pre-marital sex relations. The young boys and girls hardly confront barriers in their physical mixing, including sex. Such an indulgence is regularised through formal marriage at one stage or the other. This may, however, not happen in all the cases. Freedom of sex at the pre-marital stage further reflects in later life. Though a Bhil couple is said to be quite watchful of each other there are frequent instances where either of them would develop sexual intimacy with some third person out of the wedlock. The act is not considered as stigma or unwanted, and is regularised into a union after arranging compensation for the one who is deserted. But the fear of compensation does not, in large number of cases, prohibit married persons in going for sexual alliance outside the wedlock. The tribals cannot, of their own, manage for compensation and largely bank upon local moneylenders from whom they borrow money at exorbitant rates of interest, many a time pledging a person or family in bounded relationship. The prevalence of pre and extra marital sex relations can be taken as one of the major causes for venereal disease. Sexual freedom, including one where even the outsiders are involved, provides impetus to the spread of venereal disease. Therefore, in addition to others, the cultural base of venereal disease is significant for the consideration of those who are concerned with such a programme.

In the event of lack of social and legal control over the

freedom for sex, it may not be easy to control the problem of venereal disease. Only the mounting efforts, with provisions of various kinds, can help in the matter. Protective legislation, like the Immoral Traffic Act, have not been of much use. Coercion may not, again, be a wise exercise. What seems to have lacked is the persuasion through formal and non-formal education. Venereal disease and tuberculosis are both sensitive areas in the world of tribals. Neither their incidence is easily leaked out, nor the socio-economic and other cultural conditions provide for their control. Rather, some of the latter add fuel to the fire. How far, and in what way the outside efforts will then contribute for the betterment of condition are to be carefully devised. Acts and impositions alone may not cater to all the requirements of venereal disease and tuberculosis. The prevalent conditions in tribal society do speak of lack of sex and health education. A number of other ideas and things are taken to the tribals. But the kind of education, formal and non-formal, being imparted in tribal villages does not much speak of sex and health guidance. This has happened inspite of the fact that sex, in tribal society, occupies a very prominent place and is not treated as something not to be talked about. Closely connected to such a position of sex is the problem of venereal disease which is not much talked about by the tribals. Dichotomy of this kind can be resolved only through a proper understanding of the total perspective. What is to be included as part of health education, and in what form, should better be designed in adjustment with the ways and thinking of the tribals. They are not to be altogether ignored.

Among the other areas of interest, while reviewing tuberculosis and venereal disease vis-a-vis tribal life and culture, are the environmental conditions and recreational facility. The tribal habitations, by and large, are located in open areas in hills, forests and plains. The geographical environment around is

usually neither congested nor suffocating; wide open valleys, hill tops and fields contain the tribal settlements. Instance of pollution, caused by the advancing technology, is not imposing in the areas where the tribals concentrate, exception being a few areas where heavy industrialization has taken place. But when one enters into a tribal hut, where the family members actually stay, the picture is altogether different. Most of the tribal houses are congested and suffocating. The tribals cook their food in the darkest corner of the house, and there is no proper outlet for the smoke. They do not believe in providing ventilation. In most of the cases the room is shared by the animals and the family members. The same enclosure serves as cattle shed; as sleeping place, for human beings and as the kitchen. A part of it is used for the storing place. The fodder bundles of long grass from the false ceiling occupying almost half portion of the total ceiling. The whole atmosphere culminates into a striking situation providing breeding ground for mosquitos. Simultaneously the immediate surrounding to the residential accommodation is filthy. The waste from the cattle shed is piled up at a place adjoining to the house. The whole thing remains open and is later used as compost. In most of the areas the water that the tribals drink is again unhygienic. People make use of draw well, step well and the ponds for the purpose. In summer months when the wells and ponds start drying up, the use of muddy and dirty water is made for human consumption. Most of the tribals do not keep clean and continue to carry layers of dirt on their skin and clothes, exception being those who get in touch with the outsiders, and are more exposed to the use of protective measures. By and large the tribals take birth under unhygienic conditions, and die in the same. To diseases like tuberculosis and venereal ones, the unhygienic and the unhealthy conditions prove catalyst for worsening the situation. With this kind of living, the recreational facilities are only limited. Except the occasional dances and fairs, the

tribals mostly remain confined to the house, field and the forest, if there is any around. There is nothing substantial in the name of change from the routine. Sex remains as one big source of recreation. The position of a case of tuberculosis or venereal disease worsens under such circumstances.

When the cases of tuberculosis and venereal disease are associated with social stigma, and are not easily brought to the surface, when a Bhopa is approached in case of acute sufferings, when facility for a scientific cure is not available in the near vicinity, the tribals manage, as long as possible, to put up with the disease. Many a times, more so in tuberculosis, they do not understand the cause of their sufferings. Whatever is communicated to them by the local medicineman is accepted as truth. Under all these conditions, the disease keeps on making further in-roads in human body. There is neither a proper diagnosis of the disease, nor any suitable provision for cure. In this respect, even the health agencies, meant to provide medical cover, do not seem to be potentially functional. At the level of tribal settlements, there is lack of proper diagnosis facility. The question of treatment comes only at a secondary stage. There seems, at present, no solid and viable alternative on which the tribals can depend for proper diagnosis and treatment, especially when they themselves are reluctant to come forward. Like the tribals, the workers engaged in the health programme for the tribals express their own difficulties, personal as well as official. They have not learnt to put up with the problems that they experience in the tribal regions. Some of these are genuine and can be resolved if a little attention to them is paid by the government. Others are of more adjustment in cross-cultural setting. These can be left to the human element itself who would take care of them in due course, and specially after undergoing a little orientation and training in this respect. Any way, the problems of workers, like those of the tribals, are not to be ignored in the interest of achieving intended aims.

The above analysis of the problems of tuberculosis and venereal disease among the tribal population of Rajasthan makes it amply clear that there are many dimensions of such problems. They do not remain confined to the arena of health alone. Their linkage to other aspects of life, say social, economic and religious, is well established. Tuberculosis and venereal disease do not only concern the human body, but have significant connections with other areas of social structure and culture of the group. And the same are to be taken note of at the stages of diagnosis, treatment and cure. A disease like tuberculosis or venereal one among the tribals is, thus, not independent of other aspects of life. And the forum of social scientists, administrators and the medical scientists duly recognised the same during the course of their discussions in the workshop, of which this volume is an outcome. For specific aspects, technical or otherwise, of the tuberculosis and venereal disease, a number of special recommendations were made, which are likely to give further fillip to this part of health programme. What could be still more beneficial was the unanimity of considering 'holistic' perspective in tackling the problems of tuberculosis and venereal disease. And the empiricism, put forth through the presentation of papers, provided support to such a recognition. We modestly claim to have covered major aspects of the subject proposed for the workshop, and presume that this exercise may be helpful to those engaged in the task of creating change, specially in the field of health, in tribal society. Though the discussions and deliberations chiefly centered round the tribals of Rajasthan, it is hoped that the findings would prove useful even to other tribal pockets in the country.

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Supernaturalism Versus Mundane

R. S. Mann

Introduction

Rural India, including the tribal pockets, recognises two kinds of worlds, that is, human and supra-human. The former is characteristic of mundane life, and the latter of the supernaturals. One is more capable of understanding his or her society, its social structure and culture than the supernatural world which is more imaginary and involves, most of the time, calculations which may not be supported by the reality behind. In the sphere of society one is convinced of his acts and activities, this may not always be true for actions concerning the world of imagination. More of the practicalities highlight mundane life, and more of imaginations take lead in suprahuman situation. Again, the norms of social structure and culture are comparatively less fearing than those of the attributes of supernaturals, though the entire play of the latter is at imaginary and abstruse levels. The sacredness, associated with field of supernaturals, is subscribed to, atleast at the level of faith, by the majority. Such characters and trends mark the tribal as well as the caste society. However, more forcefully dominated are the tribals than the castemen. Further, the situation may vary as per the degree of exposition to alien conditions which are not in tune with local or native conceptions. More acculturated caste and tribal communities behave somewhat differently than those who are traditionals, or from those who have just drifted into the phase of transition. As the instance of acculturation, in

most of the cases, is more in case of caste society, the tribals are still sticking very close to the polar position of traditionality, thereby subscribing, more rigidly, to the imaginary world of the supernaturals. The phenomena of supernaturalism are more revealing and appealing to the majority of tribals. And the continuity of their age-old belief in the same has neither been, so far, questioned nor challenged by the non-tribals and their contact, exception being a few population pockets where transformation of almost a radical kind has taken place.

Specific kind of ideology and perception, concerning the supernaturals, that is, the gods, goddesses, deities, spirits, ghosts etc., persist in tribal communities. They may not have very imposing and gigantic kind of infrastructure of temples and other religious monuments, but their belief is of a very strong order. Even when some of the supernaturals are symbolically represented through mini structures alone, they carry, for the tribals, very strong meanings. People show a great deal of respect and reverence to the same. This can be attributed to the background of strong belief. For centuries their faith went on unshaken like the rocks. Equation of this kind between human beings and supernaturals, which they recognise, is marked in the diverse ways of living of a community. Most of the things and happenings which are ordinarily inexplicable, at the level of rationality and logic of the tribals, are attributed to the cause of supernaturals. Generations after generations have continued to adhere to such principles which are orally transmitted to the younger lot. The religious structure of a tribal community is chiefly represented through various elements of supernaturals wherein people have developed faith. The malevolent and benevolent supernaturals are distinguished, and the tribals have devised modes of worship accordingly. Likewise, the areas of damage and protection, caused by the supernaturals, are well defined in the native situation. The members of a community are almost equipped to deal with the

rise of any typical situation. They have their own religious specialists, including priests, witch-doctors, medicinemen etc., whose services are readily available at a very nominal cost. Therefore, though the two worlds, i. e; of human beings and supernaturals, are conceptually far apart, there is a very intimate relationship between the two. Other than religious complex, the elements of supernaturals have strong say in the social, economic and political life of the members of a community. This is practically exhibited in different forms, and on various occasions. The arena of health and sickness is no exception. The tribals establish a great deal of link between the supernaturals and the health and sickness. Causes of a large number of diseases are found in supernaturals. For cure also, the tribals again bank on the help of supernaturals. It is expressed that they approach the latter through religious specialists who are believed to have contact with, and many a times even control over certain supernaturals. The spiritual do's and don'ts, to keep healthy and protected against certain diseases, are well laid down. Similarly, the cure prescriptions are not wanting. To a common man the constitution of a supernatural world is unknown. But he believes as per the direction of specialists. In this way is represented by the nature and form of interaction between mundane life and the suprahuman one. Fear of unknown hangs on the masses who carry out the instructions of the competent specialist. Man-spirit interaction is of a higher magnitude among the tribals. Situations of emergency when the rise of sufferings is higher, make it more intense. Cause, remedial measure and cure of sickness are sought by man in the spirit complex which is, many a times, physically represented through ministructures in and around the tribal settlements. It may also be mentioned that the instance of deviancy from the prescribed course of man-spirit interaction is not only looked down upon by the majority, but is also condemned. Thus, forgetfulness to supernaturals, and hence to

their role in worldly affairs, costs heavy to an individual. Many a times the anger and wrath of supernaturals are attributed to the carelessness of certain individuals who are charged by the community as a whole. Imposition of any penalty causes revival of the old, and hence continuity of faith. Thus, the community pressure, and the fear of the supernatural elements set limit to one's outlook and actions. This is a forceful affair which makes any escape difficult. When one submits to such an atmosphere of the community, as also to the supernatural, one has no viable recourse, except the traditional one, open to fall back upon. The indigenous ways are to be accorded respect. This enhances the degree of faith, further solidifying the co-relation between diseases and the supernaturals. People do identify specific disease with a specific supernatural element. They have also defined those responsible for cure. But to get at the cause and cure of a disease, mediation of a specialist is unavoidable. By themselves the common masses have no access to the suprahuman elements, though they recognise them for specific ends. Rajasthan tribes form no exception to all the aspects dealt above.

Case of Bhil and Garasia

Among the tribes of Rajasthan, Bhil comes next to Mina, which is the largest tribe in the state. The religious sphere of Bhils is represented by a variety of spirits, ghosts, gods, goddesses, deities, worship, fear, awe, reverence etc. Images of some of these supernaturals are housed in small structures. A few of the religious centres are open to the sky. Relationship of ill-health and cure practices with the supernatural elements is well established in a large number of cases. Supernatural considerations are widely rampant. In this aspect, even the situation of long culture contact has not made much of an impact in respect of change. The Bhils recognise witchcraft. The witches meet a severe treatment after they are identified. It is widely believed that the witches cause sickness with the help of spirits. Sufferings, through

diseases, are believed to be caused by the malevolent or evil spirits which haunt the recesses of atmosphere. As an antidote the Bhils erect 'Veers', the typical kind of structures, as advised by the local priest and medicineman. The Veers have still stronger capacity to control and overpower the spirits. The erection of Veers is also suggested when someone is to be cured of a disease. Among others, Sikotra is a very popular malevolent deity in Bhil society. In addition to a large number of scattered images of parochial deities, some are housed together at a place called Deora, a religious spot. In general, a Bhil Deora contains images of Bheru, Mata, Dharam Raja, Rebari Baba etc. A Deora is a popular religious centre and commands full respect and recognition. The Deoras are erected in the name of lineage, hamlet or village as a whole. Such religious spots are specially taken care of by the popular religious man known as Bhopa and Punjare. Kotwal is mainly engaged for non-sacred service. Chief of a Deora is called Pat Bhopa or Badwa. He is fully competent to invoke deity. Even the other categories of Bhopa are no less efficient in this job. All of them are believed to have links with the supernaturals. In addition to certain other jobs, a Bhopa is used to search for the cause and cure of various kinds of ailments or diseases. He gets into trance, establishes his links with the supernatural elements and then announces for the cause of disease, and for the procedure to be adopted in its cure. In this state of affairs the announcement is believed to be caused by the responsible supernatural force. Through the set procedure, alongwith chanting of certain mystic formulae, the Bhopa takes possession of the spirit, and makes it undo whatever has been caused to the sufferer. He is thus, treated as an established medicineman. Such religious persons command a great respect in the community. In addition to a higher religious stature, they are socially rated fairly high. Their words are acted upon without any hesitation, as the same are supposed to come from one or the other supernatural force.

Some of the latter are well recognised as the cause of specific diseases. And in the event of occurrence of any such disease, the concerned spirit or deity is taken as the cause. Bhopa as a human agency, is then contacted for seeking the relief. The benevolent spirits are also recognised and the same are represented through Bhomia and Matlok structures. These are the ancestral and other spirits which provide for protection and safety in various aspects, including health. The spot of a Bhomia bears numerous images of men, carved out on stone slabs. The stones also have imprints of bows, arrows, swords, guns, horses etc. Both, Bhomia and Matlok are said to be the abode of ancestral and other spirits. The Bhils occasionally worship them for safety and good health. After a death the family members are supposed to put a stone slab in the name of the dead. In spite of the creation of certain new processes, as part of change programme, among the Bhils, the persistence of traditionality is of a very high order in respect of the spheres discussed above. Majority of Bhils continue to adhere to the old beliefs and values associated with the arena of health and sickness. This, however, does not deny for the existence of certain medical facilities which have lately been created in Bhil region. But how far they are used, and under what circumstances, and how the old and the new go together or fall apart are some of the issues of great concern.

Like the Bhils, some of the religious attributes occupy an important place among the Garasias, another scheduled tribe of Rajasthan. Elements like the gods, goddesses, Spirits, ghosts etc., are linked to various aspects of the living of the Garasia. This also covers health, disease, sickness and cure. The associated rites and rituals find a significant place. As among Bhils, the erection of death memorial is common among the Garasias too. This is more particularly to be done in the event of all accidental deaths. The underlying belief is that the spirit of the dead would cause harm, including sickness, if the memorial is not raised.

Raising of memorial appeases the spirits which do not, then, disturb the living members of the family, or of the village, and are treated as benevolent. In the absence of proper abode for the spirit of dead, it assumes the form of a ghost which takes possession of human beings, making them sick and diseased. And if it so happens the Garasias immediately contact Bhopa, the priest and medicineman, and request him to ward off the sickness believed to be caused by the supernatural agency. There is constant persistence of faith in Bhopa and his techniques, so much so that the Garasias even regard Bhopa as a representative of god. For this background, a Bhopa's body, after death, is not cremated but buried. More popular among the Garasias are two kinds of Bhopas, that is, Matajika and Bhaironjika. Out of the two, the latter is considered more competent as witchfinder as well as curer of disease. Whenever remedy to an ailment is sought, a Bhopa is requested to undergo trance, and subsequently establish links with the concerned supernatural. He then prevails upon it and makes patient relieved of the sufferings. All responses to the queries, made by a Bhopa, while in trance, are carefully heard of. Subsequently the necessary requirements are met with to get the intended favour of the supernatural force. It may be mentioned that for sterility, barrenness and other gynaecological abnormalities, the Garasias specially look to Ambaji and Bhaironji. They try to appease them through promises for various kinds of offerings. Among other means, fasting helps appease gods and goddesses. All kinds of fever, and the disease of small-pox are specially attributed to the anger of the supernaturals. The spirits and ghosts are not only widely recognised but are also believed to emanate fear and awe. The Garasias, in general, try to keep the spirits and ghosts appeased. This is done through worship, offerings and sacrifice. The place of superstition and magic, again with religious base, is no less important in the sphere of disease and sickness among the Garasias. Observance of various kinds of rites and rituals is gone for to seek relief. This relates more to the sickness among the children.

In the context of health and disease the ideological structure, and the accompanying outlook, of the tribals still stand on the traditionally fixed base. This does not, however, rule out the existence of certain change elements which have lately been inducted in Bhil localities. It was in the post-Indian independence years that a vast provision of medical facilities was made for the inhabitants of rural India. The provision did not exclude even the oiling tribal settlements. But how much of the provision could really be delivered to the people is anybody's guess. There remained a great deal of slackness on the part of change agents, as also on the part of recipient groups. For years together the Primary Health Centres were manned by the compounders alone. The qualified doctors were hardly available to be posted there. In terms of medicines and other equipment too, the Primary Health Centres continued to be undesirably ill-equipped. Such state of affairs, coupled with the indifferent attitude and outlook of the tribals to the establishment of Primary Health Centres failed to attract more people to the use of medical expertise and facilities. A majority of the people continued to stick to the old system. Even when the Primary Health Centres were provided, in the later stage, with doctors, people were not adequately motivated and mentally prepared to accept the new. Some of the medical officers, all through their tenure in tribal areas, continued to be extremely critical of their posting there, and as such could not concentrate much on what was expected of them. Simultaneous to this, the propaganda and extension media, concerning health programmes, were not forceful enough to persuade, motivate and mobilise people for their active involvement in the activities of Primary Health Centre. In comparison to the programmes of economic development, especially agriculture, and formal education, the stress on public health programme continued to be of a weak order. But it actually needed to be more forceful as the people were to be diverted from their faith in the supernatural,

change in the field of health of tribals. Neither they are expected to keep quiet on the issue, nor to ignore of what the tribals are involved in. A change agent's role does not end in keeping quiet on the plea that the response of the tribals is poor. He or she has to search for the 'how' and 'why' of the latter to sell the new ideas and technology. If the tribals are indifferent to an innovation, it has a definite background. Under such a situation the agents of change are not to stay with their indifferent attitude. Means are to be devised to gradually prevail upon the situation. But what has actually happened can be raised in a few paragraphs that follow.

Analysis

The change agents, by and large, operated as per the directives from above. And the directives did not stress on the understanding of locally prevalent practices concerning health, sickness, disease cure etc. Every level was target-oriented, thereby causing hurry for the diffusion of innovations. All efforts remained one-sided, the side represented by the target audience, that is, the tribals, was neither cared for nor taken help of. Under such circumstances the new appeared as a thrust and imposition. This made many a times, the tribals indifferent who even, under certain situations, dared openly to oppose the alien proposals. Such a reaction further strengthened the attachment of tribals with their traditional frame of reference. Most of the time, the element of respect to the native thinking and values was missed by the agencies of change. This happened because the parochial religious thinking, in the field of sickness and cure, was not explored and identified. It was required to be done, followed by due approval and respectability. The health workers, from outside, did not openly challenge and condemn the tribal ideology and belief system. But at the same time they did not accord necessary approval needed to make the atmosphere more congenial to change, and finally to get their ends achieved. Ignoring of native practices,

and the connected world-view, was itself a threat to the concerned aspect of life of the tribals. Programme of planned change does not suggest for mere intruding and intruders.

2. When the equation of confidence was not created between the donor and the receiver, when the change-agents went the way they felt like, when the native practices were not accorded what was due to them, and when the zeal for serving the tribals was missing there remained fairly a wide gap between the thinking of 'insiders' and the 'outsiders'. Lack of close-up between the two helped retain the doubts regarding outsiders intentions and activities. Such a doubtful nature of reactions of the tribals further substantiated the non-co-operative and indifferent outlook. It also led to reluctance of various forms, including one not to go in for new medicines and drugs. There remained doubt in the nature of treatment suggested by the non-traditional doctors. The local medicinemen played a key role in upholding the reaction of doubtful nature. They knew that the persistence of doubt, regarding outsiders and their role, was favourable to them as it kept people's faith and confidence firm in him. Among other things, it has been the atmosphere of doubt which did not easily let people decide to give up the old and go in for new. Only those who came into close contact and got convinced of the utility of the new technology of cure got into the fold of changers. This happened because their doubts regarding outsiders' intentions were removed. Human beings are not free of the element of doubt, it may be more in some and less in others. For reasons of isolation, illiteracy and ignorance, it is more in case of tribal communities. How can this be minimised depends largely on the outsiders and their efforts, who carry new ideas and schemes to them.

3. In addition to the attitude of doubt, the strong linkage with the world of supernaturals was another force that pulled back the tribals from participation in the programme of health.

The fear of supernaturals remained such a terror that in many instances those who once participated in some item of the new programme subsequently reversed their decision and came down again to the old. They could not hold the change for long. On many occasions the non-availability of medicines and drugs also made the tribals change their mind, and revert back to what is readily and always available as part of local system. Processes of this kind forced the revision to traditionalism, abandoning thereby what was once accepted as part of new. Even at the initial stage of decision-making, for adopting the new, the background of spirits, ghosts, deities, gods, goddesses did intervene. Their total rejection sounds almost a herculean task; the tribals cannot afford to annoy any of them. The tribals do not abandon their belief in the force of the supernatural elements even when they make use of some lately provided medical facility. On many occasions they may try the two simultaneously. But in overall context, the degree of faith is much higher in case of supernaturals. Relationship of this nature adds to the continuance of stiff attitude to the agents of change, in the field of health, and their schemes.

4. The new programme for eradication of sickness, disease and ill-health from the tribals kept no provision to contain the already existing organization of traditional experts in such fields. Under such an approach the religious specialists, of various order and who treated the sick, not only felt offended but also as deprived of their social status and income. Their modes of diagnosis and prescription were not at all cared for by the carriers of change. This made the organisation of religious specialists, including witch-doctors, priests, witches, medicinemen etc., annoyed. As retaliation, they indirectly decided to get more strongly organised, and oppose the new ideas and innovations to the extent that they are not accepted by the villagers. Their solid front discouraged the use of new treatment procedures. This was specially done on the plea that the supernatural forces would not tolerate it,

and that they may cause serious damage to human life if not cared for and kept appeased. The resentment of the traditional medicinemen was also exhibited through their secret meetings with the villagers when they spoke of the ineffectivity and ill-intentions of agents of change in the field of health. For all kinds of reasonings the sacred specialists repeatedly kept the supernatural elements at the forefront. The atmosphere in which the tribals are born and brought up is conducive to the acceptance of explanations given by the traditional specialists in the field. The traditional specialists in the field of health continue to be strong, and posing opposition to the intended efforts for creating change.

5. Another important dimension for consideration, as part of this exercise, concerns the adaptability or non-adaptability with certain connected ideals and operations characterizing tribal communities. Such ideals, expectations and operations form integral part of tribal world-view. They have survived for generations and continue to do so with sufficient effectivity. Such concerned areas have by and large, escaped the attention of those engaged in the task of implementing the new programmes of health. Even when their efforts were sincere and involved force, the implementors could not, somehow, strike a balance in terms of adaptability and compromise between the old and the new. Rather, they imported bias for one which came heavily to the other. To deal the two, that is, old and new, at two altogether separate planes, does not go in the interest of change. Such a pattern is also felt hampering at different stages.

6. Signs of weakness were further observed in another area connected to tribal life. Continuity of such a weakness could not be broken by the workers engaged in the programme of health. The weakness, under reference, concerns the 'clarity of mind and purpose'. These could not be properly established in the recipient group of the tribals. It is almost a valid fact that so long as the clarity of mind and purpose is not established, the members of tar-

get population will express reluctance in the incorporation of innovations. The forthcoming responses, if any, would be of a poor quality alone. People, will stick to the practices for which perfect clarity of mind and purpose exists. In this aspect of the change requirement, there seems to have remained a big communication gap between the tribals and those who planned to carry the health programme at their doors. What was designed to be carried through extension and social education were not done to the full. It appears that the efforts were directed more to the diffusion of material innovations than to the preparation of suitable platform for the same. In fact the latter is a pre-requisite to the former, and is to be attended to comparatively more carefully. If the formative stage is solid, the final results are likely to be better. It may be mentioned that even the currently prevailing trends do not seem to be equipped to take care of the prerequisite, and are straightway broadly aiming at the ends to be achieved. This makes the arrangement topsyturvy, and the same is contrary to the scientific procedure. Members of the tribal communities are to be mentally prepared, after the inculcation of clarity and purpose, to get away from the supernatural base, and consequent to accept new ways concerning health, sickness and disease.

7. Further, in the context of change and development, in the field of health, more congenial and accommodating atmosphere could not be created. Among certain other reasons it can be attributed to the variety of professionals who always got stuck only to their respectively defined levels. They chiefly insisted on target attainment motive and the requirements of professional competency. Such an approach made them lost in an air of superiority, which was not always appealing to the tribals associated with altogether different kind of levels. Air of superiority kept the outside specialists ignorant of what prevailed at local level. It is undoubtedly good to keep up professional competency, but then one is also supposed to see as to how it goes with the

locally prevalent conditions and trends. Through adjustment, one is to step down to create a congenial atmosphere for passing on the new. When one remains sky-high, and the other down-to-earth, the intended aims may not take shape as desired.

These sociological and social anthropological insights might apparently sound as minutely analytical, but are otherwise alarming in their practical relevance. They provide sufficient scope to planners, implementors, administrators and medical professionals to rethink about the issue, and to accordingly revise what is unwanted. The missing links in the on-going programme, and the associated procedures and efforts thereof, need to be filled after a review of the situation on the lines suggested above. The major inter-play, as already discussed in detail, is between belief-system of tribals, supernatural forces, mundane perspective and the planned programme concerning health, sickness and disease. To get at the analysis of this kind might sound more time-consuming, but it is otherwise rewarding. Ideological frame, including conceptualization of various forms, of the target population is to form part of programme implementor's baggage. And to sustain the same, operational researches should form unavoidable necessity at various stages of the programme of change.

Cultural Background of Venereal Diseases

N. N. Vyas

Introduction :

Although the published literature on illness in tribal societies is by no means sufficient, reliable knowledge concerning the type and incidence of venereal diseases, among tribals, still remains much desired. The widespread prevalence of sex diseases, among tribals, is not sufficiently appreciated. Most of the tribals affected by venereal disease hardly realize that it not only dislocates man's work, by harming his health, but also imperils chances of happy married life, and degenerate the progeny. High rate of venereal disease is largely due to ignorance of the infected persons who go without any treatment, or resort to quacks, Bhopa and other traditional medicinemen. Inadequate medical facilities also aggravate the sex health problems still worst.

There are no full proof estimation about the incidence of venereal disease among tribals. Two methods have commonly been used for the estimation of the incidence of venereal disease in the population of a given geographical unit; (1) Investigation of sample population taken as representative of total population and (2) hospital admission statistics. Difficulties which have been encountered in such local community surveys include the definition of what is a case and how to detect the patient without assessing his personality.

Hospital admission statistics of venereal disease patients are not at all maintained in Primary Health centres, dispensaries, and even the available information cannot be regarded as representative. In one of the P.H.C. of Tribal Sub-plan Area, it was observed that syphilis, Gonorrhoea and other venereal diseases were diagnosed only for general symptoms like boil on penis or vagina. The prevalence of venereal disease in the total culture, cannot be taken as

representative because composition of hospitalized patient depends, to a great extent on the availability of the treatment facilities and varying degree to which venereal disease persons are tolerated and consequently kept in their home environment. PHCs, along National Highways, have shown greater prevalence of venereal disease in tribal area because of the accessibility of medical facilities.

There are no marked differences in the frequency and nature of venereal diseases in various cultures although no methodology has yet been devised to quantify these differences in a statistically valid manner.

The difference in incidence, prevalence and type of disorder provides a practical basis in planning for sex health problems, and give insight into the necessary ingredients of preventive technique. We know that curative need exist not only within individuals but in families, communities and even whole societies. The seed of disease does not lie in the individual but it can be located in the context of the family and culture

L. K. Frank has suggested that society is "the real patient" rather than individual. Eric Fromm has suggested that society pattern defects as much in society and culture as in the individual.

The problems of sex health grow in direct relation to the disturbing traditional bonds that hold families and communities together. It is suggested that individuals socialized under such well knit family condition may suffer when they are estranged from traditional system of society arrangement rooted in family. An attempt has been made to discuss the cultural background which is responsible for the spread of such an alien disease.

It is generally assumed that some cultures are more pathogenic than others. Simple primitive cultures, for example, are thought to

Opler M. K. : Quoted in "Cultural Backgrounds of Mental Health" In the Culture And Mental Health (Ed.) Newyork, The Macmillan Company, 1959, P. 15.

produce less emotional strain than more acculturated societies like Bhils. The crucial variable selected is not cultural simplicity but other associated characteristic such as relative isolation, relative cultural homogeneity and degree of cultural contact etc.

Each culture creates stresses and strains. Some of them are universal, and some unique with which personality must cope. Although Bhils have had contact with non-Bhils for centuries but inaccessibility, remoteness, sparsely populated hilly settlement, probably served to deter travellers and few of the traders, missionaries, contractors, government servants etc.

Bhils observe clan exogamy and village endogamy. They are polygamous but majority is for monogamy. Man and woman enjoy considerable freedom in respect of sex, in the pre-marital stage. They may even indulge in sex, decide to marry and run away from home for the purpose. Extra-marital affairs too, although not formally sanctioned, are practised with impunity as long as they are conducted privately and with propriety. No social stigma is associated with these acts. Such a liberty is, however withdrawn, after marriage. But still divorces and remarriages are common though such ventures are quite expensive.

Marriage among Bhils can be solemnized after the payment of bride price. Bride price is quite prevalent among Bhils. For poor parents it is, many a times difficult to arrange for bride-price or Dapa with the result the girls find it difficult to marry before 18-20 years of age. And the boys too have to remain unmarried till a late stage. Child marriage is not common but sometime in the anxiety of getting reasonable bride price, parents may marry their grown up daughters with boys much younger in age. The life of the Bhil largely centers around wife, sex affairs, elopement and resolution of disputes. This largely limits the world-view of the Bhils.

Bhil social organization is characterized to their contact with the non-Bhils. The isolated Bhils, who did not mix with

others, continued to live in a Pal on top of the hills in a scattered manner. Others started living-with the non-Bhils in the mixed villages or at the foot of the hills. The Pal-dwellers or Palia Bhils were differentiated from Gameti Bhils or dwellers on the foot of the hills. They have also been differentiated as Ujle and Kale Bhils on the degree of contact with non-Bhils. The Bhils, living in mixed villages with other caste groups are more exposed to acculturation. Some of these Bhils have their land and houses only a little away from the main road. They claim themselves to be more civilized and progressive. However they are psychologically and morally, badly hit.

This paper largely focusses on the problems of acculturated Bhils who have been influenced by the outside world through culture contact. The motive of contact of traders, money-lenders, landlords, missionaries and rulers with tribals has largely been economic i. e., expropriation of surplus produce or free labour. With the opening of Highways and new means of communication and transportation, a heavy traffic influx occurred in the tribal region. Contractors, truck drivers, cleaners, miners, unskilled labourers and tourists have recently developed interest in the tribal area. They have different media and sources of contact. Opening up of tea-stalls (mostly run by the tribals), restaurants and illicit distillation have added new dimension to the problem of culture contact of tribals with outside world. Though there are no formally recognized brothels on the road side but it is reported that a few brothels function in private huts.

Traditionally a Bhil prefers to build his hut near the cultivable piece of land, which he owns. With the development of National High Way No. 8, tribal huts and tribal lands have come into prominence, specially those adjoining to the road side. This has led to disturbing the privacy of tribals. A few of the tribals have erected huts facing the road. This is out of curiosity and general interest in traffic. The increasing traffic, and decreasing

privacy of tribal life have given rise to the problems of psychological adjustment.

The new means of communication and transport facilities have made possible fast and cheap mobility between place of work and place of residence. This has made the life of younger lot more adventurous and mobile. The new working opportunities, as unskilled labourers on roads, mines, famine relief etc., and even in towns gave way to faster intensity of culture change. Diseases, specially venereal ones are the psychological upsurge due to heavy pressure of road side population and its psychological consequences of contact.

A preliminary interview with a group of tribal road side labourers on the N H. 8 reveals that a majority of them (52) were of the young age groups. There were more girls (35) than boys (17). Only 13 males and females belonged to higher age-group i.e., between 40-55 years. A subjective view-point for life style of younger group shows that many felt depressed and disillusioned by their mode of life. They expressed in terms of anxiety and concern over their inability to buy sufficient food or clothing, or save more to buy new articles of fashionable interest. According to few, for the sake of these allurements they love to work in labour camps and this keep away from home for some time.

Apart from economically generated anxieties, the problem of health of younger ones features most prominently in the consciously expressed problems of road labourers. At one time or other atleast 9 persons (6 males and females of younger group and 3 of older ones) had been ill, and chronic aches and pains were reported as accompanying hazards of life on the road side.

Younger tribal labourers were not found to be suspicious, but quite friendly. They do not show lack of interest in cultivating friendship with road-side traffic. Some of them have apprehension and fear of being flirited and keep themselves away from such

enthusiastic outsiders. Others projected their inability to relate their apprehension and fear with any familiar event.

In their struggle to adopt new aspects of outside world they develop venereal disease, some time as a result of "Character disorder". The traffic on the Highway is often culturally disoriented; those involved are generally away from their families. They include truck drivers, cleaners, miners, labourers, tourists etc. These people are always on the look to find some means of reducing sex-hunger and tension caused due to long absence from their families. This results into immoral traffic activities and communication of venereal infections.

Suggestions

Venereal disease is a preventable disease provided its source is detected. In most of the PHCs no special attention is given to this disease as there are many other diseases to attend to. It also takes time to treat V. D patient if one takes history of the patient, traces the source of the infection and persuades the patient to receive the treatment. To find facts, without hurting the feelings of the patient, and to trace the source, and above all to persuade, him or her to continue treatment till cured, needs skilful handling by trained doctors. Such cases alone can afford valuable data to find out the extent of the evil, and for drawing useful conclusions.

2. All the PHCs may be directed to maintain separate register of V. D patients wherein some more details of explanations should be included.

3. Long term plan for comparative cross-cultural studies in the field of V.D be envisaged, and steps be immediately taken to facilitate—

(a) Determining the criteria by which V. D might be assessed,

- (b) Pilot studies and demonstration in sex-health education in tribal areas.
- (c) Widespread dissemination of sex-health information in local dialect.
- (d) Establishment of a model V. D clinic in tribal area.
- (e) Organisation of refresher courses in Venereology.
- (f) Social Workers, both men and women who should form integral part of the campaign, helping doctors in PHCs tracing contacts, persuading patients to finish their treatment and doing follow-up works.

Social Factors of Venereal Disease and Some Remedies

M. K. Vyas

Venereal diseases are ubiquitous and all pervading. They are found among all classes and in both the sexes (Kinsey : 1953, Donahue, M. C. 1955, Bernards : 1961, Elliott and Merrill : 1961, Ellis : 1968 and Rainwater : 1968). In India the prevalence rate of V. D is very high and it can be placed next to Malaria and Tuberculosis (Park : 1979). The surveys conducted in Himachal Pradesh, Jammu and Kashmir, Uttar Pradesh, Tamil Nadu, Andhra Pradesh and Assam reveal that the incidence of V. D. is high in these areas.

V. D is a generic term which includes number of diseases i.e. Syphilis, Gonorrhoea, Chancroid, etc. The fundamental principle is that sexual promiscuity is basic to the spread of V. D. It spreads with simple fact that infected persons who enter into sex relations silently pass the disease to other partners. The high incidence of V. D may be found in those societies where sex behaviour of the members is either not governed by the strict social values, or morality of sex is not observed by the people to the extent as it ought to be. Under modern euphemism V. D is a sexually transmitted disease (Catterall : 1974).

Both the medical and the social factors play their significant role in the context of V. D. The present paper endeavours to discuss social factors alone, with special reference to tribal situation. These social factors include customs, broken homes, prostitution, migration etc.

Unlike caste society, a great degree of laxity in sex prevails among the tribals. The sexual behaviour of the tribals is governed

by their own rules and regulations, and the chastity model of traditional Hindu society is not applicable to the tribal communities. Marriage among the Hindus is treated as sacrament and lasting ritual. The extra marital sex relations are tabooed. Whereas among the tribals marriage is a free and transitional union and pre-marital sex relations are tolerated Morris Carstairs states "there is a great deal of tolerated promiscuity among the young men and girls with the provision that this must be carried on out of the sight in the jungles". "Bhil youth gets enough time for fun and frolic, while he is in jungle to graze his cattle and to watch the field. He usually establishes clandestine sex relation if and when opportunity comes as woman is considered for enjoyment" (Doshi : 1971)

Whenever such relations are detected, and if the woman is married, some compensation has to be paid to the husband. In case the female is unmarried, the paramour is forced to marry the girl, else he has to pay some amount to the father of the girl as compensation. Similarly, in the case of abduction of unmarried girl the boy is asked to marry her. If he refuses to do so he has to pay the penalty as imposed on him by the tribal council. If a married woman is abducted or if she runs away at her own instance, the paramour has to pay the penalty to her husband which would be heavier than the bride-price, originally paid at the time of marriage (Gupta : 1964)

Above narration of facts reveals that sex freedom in tribal communities is more, and hence it is very likely that the V. D. prevails in them as the custom of marriage is too liberal and extra marital and the pre-marital sex relations are tolerated.

The increase in population movement is another important factor in the spread of V. D. Migratory people are more than usually prone to the V. D. because of the change in their normal environment. The tribal areas of Rajasthan have also undergone certain

changes. The old order is crumbling. The tribals who were hitherto living in comparative isolation, in a more or less closed society, are now coming out. The improvement in the means of communication has further led to wide spatial mobility.

The industrial and irrigation projects which have come up in the tribal area of Rajasthan have attracted the tribals, and made them leave their villages. Consequently they started pouring into the nearby industrial areas to seek employment. They have started working as labourer outside their villages. The tribal labourers have to live in the midst of other labourers. It is generally observed that young tribal girls are being exploited by various functionaries for their sex pleasure. Similar observations have also been made by Sachchidananda in Bihar. According to him the number of marriages have been reported between tribals and non-tribals in Noamundi Iron Mines area. Besides tribal girls are being kept as wife. There are as a consequence a number of illegitimate children when the non-tribal father leaves the mother and children are left destitute. The mother more often than not falls from virtue and the children become delinquent (1965).

The another social factor of V. D. is broken home. Sociological studies reveal that delinquents and promiscuous women are drawn from broken homes. These studies further suggest that homes broken by death are not as likely to result in any delinquency as homes where there have been divorce, separation or desertion.

Cases of divorce, desertion and separation are comparatively more frequent among tribal communities. To go in for divorce is easy among tribals. The modus-operandi is very simple. A man desirous of divorcing his wife tears off the cloth which covers the head of women (locally known as Odhani) and then both among the Bhils, are allowed to go the way of their choice. Usually such persons contract sex relations somewhere else.

The incidences of undeclared divorces are also reported among the tribals of Rajasthan. A woman, badly treated by her husband or in-laws usually runs away from husband's home to choose her own course of action. Sometimes the disharmony in sex relations leads to separation and desertion. In most of the cases such woman again establishes sex relation with someone else.

The surveys and investigations carried out in various parts of the world have revealed that the problem of prostitution has a direct bearing on several social pathologies, including V. D. The plain and simple definition of prostitution is that it is a commercial sex activity in which the passive partner, generally the woman, is gratified with cash or kind for the satisfaction of the sexual passion of the active partner. The practice exists both in institutional and non-institutional forms almost in all societies. Females coming from lower economic status may practice prostitution for want of easy money. However, it is believed that the problem of prostitution, in its non-institutional form, is increasing very fast among the tribals. The contractors and other functionaries exploit the young tribal girls for their sexual satisfaction. It is also reported that prostitute homes are being run on the road side in the tribal areas for the convenience of interested persons.

The above discussion reveals that V. D is a classless disease and prevails among all sections of societies. For want of systematic data it is difficult to know the extent of V. D among tribal communities. However, it appears to be high as the agent factors of V. D are operating very high in the tribal areas.

At the same time, the number of V. D cases, in tribal areas, may be more than the reported ones. This is mainly because a person does not want to disclose the name of other with whom he/she has established sex relations. Sachchidananda has found similar trend in his study of Noamundi Iron Mine. He stated that not a single tribal has pointed out that he was suffering from V. D despite the high incidence of V. D cases in the area. It

is, therefore, suggested that an extensive health education programme should be organised in the tribal areas and people should be made aware of the grave consequences of V. D. Free treatment, including latest anti-biotic therapy, should be given to the patients by efficient clinic services.

V. D is transmitted by one person to another mainly through sexual intercourse. The infected person silently passes it on to the other during the time of intercourse. It is, therefore, essential that once an infected person is detected, he should be persuaded to disclose to the name of other partner, as it would help in tracing the long chain of infected persons, both men and women. The aim could be achieved through effective follow-up work.

The incidence of V. D. has the relationship with sexual exposure. A reduction in the sex laxity may water down the level of the problem of V. D. Therefore, enough publicity, educating about sexual matters and the dangers of contracting sexually transmitted diseases should be done. The basic fact is that laxity in sex spreads V. D. and if a person is made aware of it, well in advance through effective media he or she may not contract freely.

Venereal Diseases : A National Problem

P. N. Sharma

N. K. Bansal

M. P. Parik

Venereal diseases are now termed as sexually transmitted diseases and are of ancient origin, common to developed and developing countries. The venereal diseases have severe consequences from the individual and community health point of view. They are a constant menace to the community health. Because of the social stigma attached to them, the cases usually remain hidden and unreported in official record for the purposes of treatment.

The major conditions of sexually transmitted cases are, Syphilis, Gonorrhoea Chancroid or soft sore, Lymphogranuloma Inguinale or Donoransis, Lymphogranuloma Venereum, and Non-Sp. Urethritis. The minor conditions which are sexually transmitted do not affect only the promiscuous but also the married ones.

The major conditions occupy a special position amongst communicable diseases as they are linked up with one of the basic instincts of man. Syphilis is responsible for many neo-natal death, mental diseases, blindness and serious cardiovascular diseases. Gonorrhoea remains a dangerous disease for women. It has been shown that gonococcal salpingitis complication in the female occur in 10% and results in sterility in 3% of cases. In male prostatitis and epididymitis occur in 1 to 2% of gonorrhoea cases.

According to official statistics, the incidence of gonorrhoea per 100,000 population in 1971 was 307.5 in U.S.A., and 158.7 in Canada, 316 in Denmark and 500 in Sweden. It is estimated that there are about 150 million cases of Gonorrhoea in the world today and 50 million of cases are of early infection of syphilis. A W.H.O. study concluded in 1970, confirms that the spread of Venereal infection can be mainly attributed to the rapid environment, social and behaviour changes that the world has undergone in the last decade.

Among communicable diseases in India V. D constitute a major problem, next only to Malaria and T. B. The prevalence of syphilis is nearly 5% of the population, but it is nearly 80% in some parts of Jammu and Kashmir, Kullu Valley in Himachal Pradesh and hilly regions of Uttar Pradesh. Information for gonorrhoea is inadequate in India but in general it is more prevalent than syphilis and nearly 80% of women are a symptomatic carriers. Chancroid is fairly widely prevalent in India. Lymphogranuloma-Venereum is more in South India and endemic in Madras and Vishakapattanam. Gr. Inaguate disease was first described by MC lead in Madras in 1882. Prevalence of this, in Andhra Pradesh, is 6.1%.

A proper understanding of the cases is a necessity if not only precondition for planning and control of V. D. Various socio-economic factors have been responsible for the spread of V.D., which can be analyzed.

In a report, Sidhu found that 92.8% of cases reported prostitution as the source of infection. Rengaswamy, in his study, stated that 82.2% of V.D. cases contracted the disease from prostitution. In a society like ours, where sex norms are different for men and women, prostitution has been Institutionalised through such religious customs as Devadasi system, thereby victimizing women. Another custom prevalent in India is the girl's going to her parents for six-to-eight months for delivery. And the prolonged period of separation, imposed on the husband, results many a times, his seeking extra marital contracts. Among tribals, sexual laxity leads to Venereal diseases

The Singur study identified no less than 168 days, in a year, when Hindus have to abstain from sexual activities on religious and sacramental counts. This forces them to go outside home to seek sexual pleasure and become victim of infection and childlessness.

It is reported that prevalence of V. D is higher in the lower socio-economic groups mainly because of combination of adverse factors like poverty, crowded living condition, lack of recreational facilities and cultural deprivation. Ignorance and lack of medical education are also largely responsible for higher incidence of V. D in lower strata of the social class. Among high risk occupation are migrants, labourers, seamen, soldiers, unskilled labourers and tourists. In term of family background, broken homes and marital discard are reported to be major factors in the spread of disease among teenager groups.

The extent of Venereal Diseases among the tribals cannot be diagnosed and estimated properly unless the various factors, responsible, are known.

The factors which are responsible for V. D in tribal areas are many. Some of them can be listed as below :

1. Sexual-laxity
2. Free working opportunities
3. Social permissiveness
4. Unhygienic environment
5. Ignorance of disease
6. Lack of recreational facilities
7. Lack of health education
8. Migration work to cities
9. Temporary separation from partners
10. Lust for easy money
11. Lack of medical treatment facilities
12. Treatment by quacks, and to traditional medicinemen

Evidence from historical records suggest that syphilis, the major venereal disease, appeared in dramatic suddenness at the end of 15th century in Europe. The origin of disease is disputable, but according to some it was brought to Europe by the crew of Christofar Columbus who acquired it from West Indies. Some of returning crew of Columbus are said to have accompanied the army of Charls VIII of France during the invasion of Italy in 1494.

The disease is said to have appeared in France, Germany and Switzerland early in 1495; in Holland and Greece in 1496; in England and Scotland in 1497, and in Hungary and Russia in 1493. In 1496 the Parliament of Paris decided that all persons infected with the disease should leave the city within 24 hours. On April 21, 1497, the Town Council of Aberdeen, Scotland ordered that women of ill fame desist from venery on pain of being branded with a hot iron on their cheeks and banished from town. In Ayurvedic history Bhava Prakash has described the disease as 'Faranga Rog', or portuguese diseases. Venereal diseases are found predominantly in large cities, to which the majority of young immigrants move and where casual encounters, prostitution and homosexual practices are common.

In U.S.A., in 1971, the percentage rate for early syphilis, in the age group 15-19, was 19.8%; and 20-24 years age group 41.3%. In the higher age group there was a progressive disease with age until at the age of 50, the rate was 1.8%. Gonorrhoea rates showed a similar pattern. In our country, Andhra Pradesh has the highest incidence of V. D where, in 1970, about 4,50,000 cases were reported. West Bengal comes next, followed by Maharashtra; Bombay has now become one of the ten most V. D affected cities in the world. A Municipal Survey, some years ago, revealed that 85% of the women in the red light areas of treats about Bombay had V. D. The only V. D. Clinic, run by the Municipality 4,59,000 cases every month, against about 30,000 in 1969.

A recent study of inmates of Jails and Beggar Homes in Tamil Nadu showed V. D incidence upto 60%. According to W. H. O. report, V. D, ranks third among the major disease in India, next only to Malaria and T. B.

The total number of V. D cases reported in Skin and V. D. Outdoor Department of General Hospital Udaipur is 180 out of 22726 total cases. Out of 180 V. D cases, 12 cases are from tribal area.

Table - I
TRIBAL AND URBAN-WISE V. D. IN
GENERAL HOSPITAL

Area	Chan- chroid	Gonorr- hoea	Cong.	SYPHILIS Pri. Sec.	Tertiary- latend	Vowart verred	Dono- veniasis	N.S. Ura- thititis	Mono- lisis	Trad- aulus	Total
Tribal	5	1	0	2	2	0	1	0	1	0	12
Urban	47	37	2	29	24	1	7	9	8	0	168

Table - II
V. D. ACCORDING TO AGE GROUP

Age	Chan- chroid	Gonorr- hoea	Cong.	SYPHILIS Pri. Sec.	Tertia- ry Latend	Vowart	Donoven- iasis	N.N. Ura- thitis	Monol- ises	Traum- adaulus	Total
Below 20	13	10	2	3	5	1	3	2	1	2	43
21-25	9	18	-	19	6	-	1	5	-	1	62
26-30	22	4	-	1	7	-	2	-	-	1	39
31-35	3	4	-	3	2	-	1	1	-	-	16
36-40	3	1	-	1	3	-	1	-	-	-	9
Above 40	2	1	-	4	3	-	1	-	-	-	11

Out of 180 cases of V.D., 161 were males and 19 females.

Table - III

4. V. D. ACCORDING TO RELIGION

Religion	Sex		Total	Percentage
	Male	Female		
Hindu	148	16	164	91.111
Muslim	6	1	7	3.888
Sikh	3	—	3	1.666
Christian	4	2	6	2.333
Total	161	19	180	

Table - IV

5. ACCORDING TO OCCUPATION

Occupation	No. of Persons	Percentage
Skilled	75	41.666
Unskilled	28	15.555
Professional	10	5.555
Unemployd	64	35.555
Managerial	3	1.666
Total	180	

Table - V

V. D. AND INCOME GROUP

Income (Rs. p.m.)	Number of Persons	Percentage
0-100	31	17.222
101-200	55	30.555
201-400	63	35.000
401-600	22	12.222
601-above	9	5.001
Total 180		

The basic elements of venereal disease control are :

- I. Case finding : Based on the assumption that for every case on V. D there must be at least one other case which is hidden in the community and which must be found.

Usual methods are :

- (1) Contact tracing : By interviewing the patient for their sexual contacts during the critical period of their infection. The contacts are then persuaded to attend a clinic for examination and treatment.
- (2) Cluster testing : Patients are asked to name the other persons of either sex, who move in the same socio-sexual environment, after taking them in confidence.
- (3) Screening of special group : To screen the selected group of population e.g. Industrial areas, police, army, mothers attending the Antenatal clinic and blood bank donors.

II. Treatment

- III. Follow-up for syphilis : Repeat quantitative serological tests, 3, 6 and 12 months after the treatment.

Gonorrhoea : 7-14 days after the treatment, clinical and pathological examination is to be done.

- IV. Social therapy : V. D is a social problem with medical aspects. So, alongwith medical therapy, a social therapy is also necessary. This includes :

- i) Rehabilitation of prostitutes,
- ii) Provision of recreational facilities.
- iii) Provision for decent living condition.
- iv) Marriage consulting.
- v) Removal of condition leading to prostitution.
- vi) Use of Alcohol, LSD and other intoxicating things should be prohibited.

- vii) Prohibiting the sale of sexually stimulating literature like pornographic books and photographs. Control on the use of alcohol and other intoxicating drugs is to be imposed.
- viii) The suppression of the Immoral Traffic Act 1956, and the drugs and magic remedies (objectionable advertisement) Act 1954, in India, direct to the elimination of prostitution, false advertisement, sale of spurious drugs and treatment by quack.

V. Health Education : To provide general information on the various aspects of V. D and thereby creates an awareness among people about the problem of V. D in community and motivate them to make use of the clinic services.

(a) V. D are disseminated through promiscuous sexual intercourse.

(b) Male contraceptives appliances do not guarantee complete prevention and female appliances none at all.

(c) A cure may be expected but the infection can occur

(d) Promiscuous individuals are not only danger to themselves but also to the whole community.

VI. Sex Education : Purpose is to lead the child into the fullest, trusted, noblest and most fruitful relations of which he is capable with the world in which he lives.

Venereal Disease in Dungarpur District

B. L. Malvi

The venereal diseases generally known as diseases spread by sexual intercourse include Venerealsyphilis, Gonorrhoea, Nonspecific urethritis, Chancroid or softsore, Lymphogranuloma, Venerum and Granuloma in guinale. The minor diseases which can also be transmitted by sexual intercourse are Scabies of the genietalia, Public lice, and Herpes simplex.

Distribution and Prevalence of V. D :

Despite excellent methods of diagnosis and treatment, venereal diseases are still widespread. In fact venereal diseases, popularly known as V. D, are not limited to few countries but its spread can be seen in the whole world. After a dramatic decline between 1950 and 1957, syphilis and gonorrhoea have shown an upward trend in several countries. In some countries, the reported incidence reached an epidemic proportion. It is estimated that 150 million cases of gonorrhoea and about 50 million cases of early infections of syphilis are found in the world today. According to an official statistics, the incidence of gonorrhoea per lac population in 1971 was 307.5 persons in U.S.A, 158.7 in Canada, 316 in Denmark and 500 in Sweden. A W.H.O study conducted in 1970 confirms that the spread of venereal diseases infection can be mainly attributed to the rapid environmental, social and behavioural changes that the world has undergone in the last decades. There is a rising trend of incidence of V. D all over the world. Recently, WHO in its reported data from 105 countries, shows that in 76 of them, there is persistent rise in incidence of V. D. These countries include the developing countries as well.

Prevalence Rate in India :

It is very difficult to know the prevalence of venereal diseases in any community, because of its associated sexual activities, which are not socially approved. The diseases is often concealed and treatment is carried out, in many instances, privately by unqualified persons. The reporting about its prevalence by private practitioners is also not satisfactory.

The disease is more common in places where proportion of sex ratio is not even. Many times because of rapid urban and industrial growth men-folk are forced to live all alone without families. Rapid growth of industrial areas and absence of family quarters have resulted for factory labourers to live separated from their wives. They are forced to go to brothels and become sexually pathological group of population. The rapid movements of large number of travellers by land, sea and air also cause venereal infection because of sexual urge.

Among the communicable diseases in India, venereal diseases constitute a major problem, next on by to malaria and tuberculosis. Syphilis is widely prevalent in large cities, ports, industrial areas. Its prevalence is estimated to be 5% of the population. Surveys conducted in Himachal Pradesh, Jammu and Kashmir revealed a prevalence rate ranging from 30 to 40 per cent.

Information on the prevalence of gonorrhoea in India is inadequate. The general impression is that it is more widely prevalent than syphilis. 80% of infected women are reported to be symptomatic carriers. In this one case leads to another with the rapidity. Chancroid is reported to be fairly widely prevalent in India. Lymphogranuloma Venereum is reported more in the Southern states. It is endemic in Madras and Visakhapatnam.

As there is no V. D clinic in District Dungarpur, and as no survey has been conducted, the exact prevalence of V. D cases cannot be estimated. However, according to the records of General Hospital Dungarpur out of 100 outdoor patients 2.2 are V D cases. Besides a good number of V. D cases are taking treatment from private practitioners and quacks. It can be estimated that prevalence rate in Dungarpur District is between 2 to 3%. It has also been reported that venereal disease sufferers are from poor socio-economic group.

There are 5 Primary Health Centres in Dungarpur District. To have an accurate data it was decided that PHCs should maintain information on a specially designed proforma. Such information for a duration of 20 days were collected. In all 52 cases of V. D were registered. Out of 52 cases, 19 are female cases which shows roughly the ratio between male and female as 3:1. According to

age-group, 15 cases were between 17-25 years, 9 in the range of 630 years, 17 in the age group 30-35, and 11 cases were above 35 years.

From the above data it is evident that more cases are in the age-group 17-25 and between 30-35 years. All the recorded cases are married. Income-wise distribution of reported cases shows that annual income of 25 was upto Rs. 2000, 12 have income between Rs. 2000-3000, 10 have upto Rs. 5000 and 5 have more than Rs. 5000.

It clearly shows that the venereal disease is more prevalent in lower socio-economic group of persons. As regards the source of infection only 10 cases received infection from outside, and others from the local source. It shows that a large number of persons are getting infection from the local source. Out of these 52 cases, 35 are tribals. This shows that the incidence is more among the tribal people.

Table - I

Monthwise venereal disease cases and total number of out-door patients 1979.

S. No.	Name of the Month	Total No. of out-door cases	No. of Syphilis Cases	No. of Gonorrhoea Cases	No. of Urithritis Cases
1.	January	6706	10	5	260
2.	February	6789	3	3	180
3.	March	7529	2	0	192
4.	April	7043	6	1	136
5.	May	8127	6	1	110
6.	June	7176	1	0	80
7.	July	7518	2	0	70
8.	August	8382	2	0	174
9.	September	8058	7	4	192
10.	October	7000	12	10	183
11.	November	6144	4	4	97
12.	December	4841	7	3	60
Total		85314	63	31	1734

Table - II

Monthwise Urithritis cases admitted (indoor) 1979.

S. Month No.	Total Indoor Patients	Urithritis Cases
1. January	616	6
2. February	539	5
3. March	581	41
4. April	603	6
5. May	765	18
6. June	702	11
7. July	765	19
8. August	697	10
9. September	730	10
10. October	690	8
11. November	691	4
12. December	694	5
Total	8073	143

Above table shows that out of 85314 outdoor patients, registered in the year 1979, 63 were suffering from syphilis, 31 from gonorrhoea and 1734 from urithritis. About 2.31 per cent of the total outdoor patients were suffering from V. D. Similarly, 1.77 per cent of the total cases were suffering from V. D in the indoor of the hospital.

In outdoor patients department it has been reported that the V. D. patients generally come in the initial stages and they respond very well with the long acting penicilline. It shows that tribal people of this area are quite aware of the disease and they come forward for the treatment.

There are many factors largely responsible for the V. D. Agent factor man is the only reservoir of infection and the causative agents are as follows :—

Syphilis : It is caused by a spirochet called *treponoma pallidum*.

Gonorrhoea : It is caused by a Bacteria called *Neisseria Gonorrhoea*.

Chancroid : It is caused by *Halmophilus ducrey*,

Lymphogranulosa Venerium : It is caused by a virus.

Lympho granuloma Inguirila : It is caused by Donovan Bodies.

Social factors responsible for the spread of venereal diseases are prostitution broken homes, sale of body for easy money, emotional instability, subnormal intelligence, sexual abnormality, frustration, social influence of urbanisation and industrialisation, population mobility, changing behavioural patterns, social stigma of V. D, misconception about V. D, marriage customs, alcoholism, late marriages, social disapproval of widow remarriage in some societies and oral pills and IUCD (Fear of conception is removed and leads to increased sexual activities) which will prevent pregnancy but not V. D.

Incubation Period :

S. No.	Name of the Disease	Incubation period
1.	Syphilis	10-90 days
2.	Gonorrhoea	1-10 days
3.	Chancroid	1- 5 days
4.	LGV	3-20 days
5.	IGI	1- 6 weeks

Laboratory diagnosis :

Syphilis :

1. Dark field examination : serons fluid from the lesion of genitalia.

2. Serological tests :

1. Nonspecific antibody (reagins)

2. Specific Antibodies

Non-specific Antibodies derector : It is done by S. T. S. (Serological test for syphilis or standard test for syphilis)

(1) Flocculitom test : Mostly used in V. D. R. L. TEST, KHAN'S TEST.

(2) Compliment fixation test : wasserman reaction.

Other tests :

Specific Antibiotics :

Treponema Immobilization Test (IPT)

Reiters protein complement fixation test (RPCFT)

Biological Falsepositive in following diseases :—

Malaria, Leprosy, measles, rubells. Preumine, pregnancy, etc.

Gonorrhoea :—

1) Smear examination : Demonstration of gram-ve Intracellular Diplococci in URETHROL or CERVICAL smears. However a negative SMEAR does not exclude gonorrhoea and culture should be performed to establish the diagnosis.

2) Culture : In case of males a culture specimen should be obtained by gently scraping the ANTERIOR urethra with a sterile wire loop and in females from the endo cervical canal.

3) Flourescent Antibody test : It is for rapid and positive diagnosis.

Chancroid : (1) Smear exam (2) Culture, (3) Biopsy.

Lymphogranulome Venereum : (1) Virus isolation (2) Serological test complement fixation test.

L. Granuloma injuvinale : (1) Smear Giemanstain (2) Biopsy.

Minor Conditions :

(1) Trichomonas : (2) Herpes simplex :

Clinical Features :

Gonorrhoea : The acute lesions in male is urethritis about 3 days after infection. It seldom passes unnoticed and is usually characterised by acute pain, burning sensation during micturation and discharge of pus per ureihra. Acute stage usually passes off in a few days with or without treatment.

In chronic cases (untreated or incompletely treated cases) milky white or whitish discharge per urethra specially before urination in the morning is seen. In presufonomide era chronic cases

were characterised by urethral stricture. The common extent of infection is to be posterior urethra resulting in epididymitis leading to sterility, prostatitis, and endocarditis.

In the female, the acute stage may pass without much concern. The common lesions being urethritis, cervicitis and infection of the Bartholin's glands. The symptoms relate to the site of lesion; frequency of micturation, burning pain during micturation and feeling of incomplete emptying of bladder when urethra is affected; when cervix is affected, pain may not be much characteristic (Low backache) but there is discharge of varying amount, some times profuse and purulent on examination erosion of CERVIX and discharge may be seen. When Bartholin's gland is affected symptoms of inflammation followed by abscess formation. The characteristic symptoms are painful swelling accompanied often with difficulty in walking and sitting. In children, the disease is manifested by vulvovaginitis, severe pain, discharge and some constitutional symptoms.

Extension of infection may go to pelvic region with symptoms of salpingitis, pelvic peritonitis, oophoritis and tuboovarian abscess. It may result in sterility and may lead to constitutional symptom.

Syphilis : The syphilis can be congenital or acquired. The man is the only reservoir of this. During the infection period saliva, semen, blood and vaginal discharge all can lead to disease.

The congenital syphilis is transmitted after four months of pregnancy. Looking to this, the congenital syphilis can be prevented if cases are diagnosed in time.

Acquired syphilis is usually transmitted by sexual intercourse, but in rare cases the infection may be acquired from non-sexual courses. The acquired syphilis is manifested in 3 stages, that is, primary, secondary and tertiary.

Primary Syphilis : The characteristic lesion of primary syphilis is a sore. Other than genital, chancres may be found on the lips, tongue and nipples, but these are not common. The infection of tongue and lip are transmitted by kissing

Characteristics of hard chancre :

(1) Single hard, (2) Small slightly raised and flat and painless (3) having regular margin, (4) built up edge, (5) clean floor. (6) indurated base, (7) absence of signs of inflammation in the surrounding tissues, (8) Enlargement of regional lymph glands.

The Primary Syphilis heals even without treatment is followed in 2-3 months by secondary stage.

Secondary stage: This stage is characterised by the presence of skin rash, mucous patches inside the mouth generalised lymphadenitis, lymph nodes are enlarged, discrete and painless. Other symptoms include headache, vertigo, malaise, rise of temp, pain in bones and joints, iritis, sore throat, tonsillitis hoarseness of voice, tachycardia, enlargement of liver and spleen epididymitis frequency of micturition etc.

Tertiary stage : The manifestations start usually 4-5 years after infection and seen in 3 forms;

1. **Gumma :** These may form anywhere in the body. Among those visible are gumma on the skin. The Gumma on the palate leads to its perforation and those on the septum of nose break down to cause depression of the bridge of the nose

2. **Cardiovascular Syphilis :** The symptoms due to cardiovascular syphilis occur 5 to 20 yrs. after infection. Aortic stenosis, aortic regurgitation, aortic aneurism or a combination is the usual picture. Sometimes coronary vessels are also involved.

3. **Syphilis of CNS :** The present symptoms may be blindness tabes dorsalis etc.

Congenital Syphilis : It may remain latent showing no signs and symptoms.

The Characteristic symptoms are :

1) Depressed bridge of the nose, 2) Frontal bossing, 3) Hutchinson's teeth, 4) Interstitial keratitis, 5) 8th nerve deafness, 6) Retarded mental and Physical growth, 7) Optic atrophy.

Soft Sore (Chancroid):

In this patient usually gives a history of exposure about 2-5 days before appearance of the sore, but never more than 10 days

ago. The sore begins as a papule or a vesicle which becomes pustule breaking with the formation of an ulcer in the genital region.

The Characteristics of the ulcer are; (1) Usually multiple in nature, (2) Highly painfull. (3) The margin is irregular (4) Floor covered with dirty exudate or slough, (5) no induration at base, (6) Ulcer bleeds easily, (7) Signs of inflammation in the surrounding tissue.

Granuloma Inguinale : The patient usually gives a history of exposure between 3 to 30 days before the onset symptoms. The sore usually starts as papule or vesicle which forms an ulcer. With the following characteristics painless velvety granulating floor. If the disease is neglected the disease may result in destruction of the genital organs and spread to other parts.

Lymphogranulom Venereum : It is found especially in the tropical America and Far east. It is, however, rare in this country. In this also a papule or vesicle forms an ulcer on the external genitalia with involvement of lymphnodes.

Control of Venereal diseases :

The venereal diseases can be controlled in the following ways :

(1) Case finding, (2) treatment, (3) follow up, (4) solid therapy, (5) health education, (6) sex education, (7) Legislative measures.

(1) Case finding : Control of V. D is not possible without full reporting and epidemiological investigation of all cases. Case finding is based on the assumption that for every case of V. D there must be atleast one other case which is hidden in the community and which must be found.

In syphilis, where the incubation period is longer, the contacts can be traced before they become infections, but in gonorrhoea where the incubation period is shorter, by the time the contact is traced, fresh links of infection have already been forged. So, case finding is the main thing in the V. D control programme.

The usual finding methods are :—

(1) **Contact tracing :** The most economical approach to case finding is the interviewing of infected patients for their sexual

contacts during the critical period of their infection. The contacts are then persuaded to attend a clinic for examination and treatment. The key to success in contact tracing is the patient himself who must disclose all sex contacts. In some countries e. g. U. K. contact tracing is undertaken on a voluntary basis with the help of trained social workers and health visitors. In U S A, contacts were traced by contacting on phone and other means of rapid communication.

(2) *Cluster Testing* : A new case finding method called cluster testing has come into prominence. The patients are asked to name other persons, of either sex, who move in the same socio-sexual environment. These persons are then blood tested.

(3) *Screening of special groups*: A third method of case finding is to screen selected groups of population e.g industrial workers, army, police, mothers attending antenatal clinics, blood bank donors, hospital in-patients before recruitment of labours for any project. sample group testing. In District Dungarpur, survey is very essential to know the prevalence of the disease, and any of above methods can be adopted for the survey

Treatment : By modern methods of treatment Infectious cases can be rendered non-fec-ion quickly and economically. Treatment must be free and there should be suitable arrangement for treating males and females separately in V.D clinic. The people who drop out before completion of treatment should be followed up. But unfortunately in District Dungarpur V. D being a prevalent there is no V. D clinic and there is no follow-up of the cases, which increase the prevalence rate of disease. Hence it is suggested to open a V. D clinic atleast at District headquarter with the complete field staff e. g health visitors and social workers who can help in detecting the cases in the community and tell them regarding treatment, and can also follow drop out cases for complete treatment. The current method of treatment which is adopted in District Dungarpur is as follows :—

Syphilis :

Early cases means duration of disease is less than one year. A single IM injection of 2.4 millions units benzathine penicilline which comes by the trade name Penidure 'LA 24 is curative in the great majority of cases. It provides effective blood and tissue levels for 3 weeks or more.

Among the persons who are sensitive to penicilline alternative drug is tetracycline hydrochloride or erythromycin 500 mg. four times a day by mouth for 15 days is good enough to cure the disease.

Syphilis of longer duration requires high dose therapy. Benzathine penicilline G. 7.2 millions units total dose to be given in 3 divided doses i.e. 2.4 million units weekly for 3 successive weeks.

Congenital Syphilis : In this, treatment is accomplished by IM injection of aqueous crystalline penicilline G 50 000 units per kg aily in divided doses for a minimum period of 10 days.

It has been noted by experience that unless Syphilis is treated within the first 2 yrs. of infection, it is unlikely that *T. pallidum* can be eliminated from the body despite of very large doses of penicilline.

Gonorrhoea : In our hospital, presently adopted method of treatment is one short treatment by the use of long acting penicilline. It has been noticed that most of the cases are cured by this treatment.

The alternative drug therapy in the sensitive persons is Tetracycline or Ampicilline 5000 gr. four times a day for 3 to 5 days.

Soft sore : Penicilline	}	3 to 5 days.
Sulfa		
Streptomycin		

L. G. V. : Terramycin 2 gm. daily for 20 days.

L. G. I. 1. Sulfadimadine 1 gm four times a day for 10 days.

2 Oxytetracine 250 gm. 6 hrly. for 10 days.

3. Surgical treatment.

Follow up : All patients with early syphilis and congenital syphilis should be encouraged to return for repeat quantitative serological tests 3, 6 and 12 months after the treatment Patient with syphilis of more than 1 year's duration should have a repeat serological test 24 months after treatment including an examination of C. S. F. during 2nd year.

Gonorrhoea : Now Gonococci resistant to penicilline have been isolated which makes the penicilline in-effective hence it is recommended that every patient with gonorrhoea should be given a

further clinical and pathological examination, 7-14 days after the treatment. The urine should be examined for small mucous threads and woman should have atleast 2 negative cervical tests consisting of smears and cultures preferably taken just after the menses. Patient from whom a positive culture is obtained, after a lapse of time, will have to be treated with other antibiotic other than penicilline. For the follow up of the cases in tribal area medical social workers and health visitors should be posted at the District headquarters and also at P. H. C. level.

Social Therapy : Venereal diseases are a social problem and therefore, in addition to medical treatment social therapy would prevent and control the venereal diseases. Various measures included in this, are :

(1) Rehabilitation of prostitutes, (2) Provision of recreation facilities, (3) Provision of decent living condition, (4) Marriage counselling and pre-marital examination (5) Removal of conditions leading to prostitution, (6) Prohibition on the sale of sexually stimulating photographs. (7) Improvement in social and economic status. (8) Free diagnostic and treatment facilities by opening V. D. clinic. (9) Special facilities for private practitioner by keeping seminars refresher courses, lectures etc (10) Facilities for hospitalisation. (11) Provision of rescue homes, work centres and vocational training centres.

In tribal area of Dungarpur no recreation facilities have been provided, and the living conditions are also very bad. These two things are to be improved to control the V. D.

Health Educator :

Health educator is an integral part of venereal diseases control programme. The object of health education is to provide general information of the various aspects of V. D., and thereby create an awareness among people about the problem of V. D. in the community and to motivate them to make use of the clinic services.

In clinic, persons should be guided for the following :

1. Venereal diseases are spread by sexual intercourse.
2. Male contraceptives do not provide complete protection, and female appliances none at all.

3. A cure may be expected but reinfection can occur.
- 4 The effect of diseases in wife and children,
- 5 The effect on individual if un-treated or incompletely treated.

The health education can be given through film shows, posters, handbills handbooks, radio talk and discussions, television and other mass communication methods, group meeting news papers, journals, exhibition, lectures and talks, cinema slides etc.

Sex Education : The sex education should be a part of general education. It should be given to children, as they grow up, by their parents and teachers who should answer their questions honestly and frankly. Discussions in small groups, in schools and youth clubs, are of great advantage.

For the prevention of V. D cases the Government of India laid down an act known as Suppression of Woman and Girl Immoral Traffic Act 1956. Other laws should be formed to control V. D. There may include registration of prostitutes and their medical check up, notification of disease, compulsory examination of all pregnant mothers for V. D. compulsory examination and treatment of suspected cases, prohibition on the sale of drugs for self treatment and legislation against prostitution and brothels.

If cases of syphilis are not treated, 1 in 20 will go blind, 1 in 44 insane, 1 in 25 crippled and handicapped and 1 in 13 will develop heart diseases. The complications are due to concealment of disease. Hence for control, the old idea to hush up the venereal diseases as something evil has to be removed and V. D. must be treated as other communicable diseases.

Venereal Diseases and Tribals

S. N. Samadani

Janardan Singh

Rajendra Sinha

There are two major diseases viz. syphilis and gonorrhoea, related to sex. Although these diseases are sometimes contracted in other ways, they most frequently are picked-up through sexual intercourse with one who already has the disease. Prostitutes are the usual source of infection in any community.

Syphilis :

Syphilis is one of the greatest scourges ever to hit the human race. This disease was apparently unknown to Europe and Asia until the fifteenth Century. It is believed that it was brought from the new world by some of the men who sailed with Columbus. Within a short time the disease spread like a plague.

Syphilis is a dangerous venereal disease. It is caused by a little Corkscrew-shaped germ called a Spirochaete. This tiny germ is transmitted from one person to another, mainly through sexual contact. In a few cases syphilis is acquired through contaminated material and even through injections or blood transfusions, if the germs are present in the blood. If a mother is infected with syphilis, the germs may find their way into the child's body before birth.

Most cases of syphilis are contracted from prostitutes. In the male there may be a painless sore on the penis, lasting several weeks. In the female there may be a sore deep in the vagina, but because there is no pain the woman may not be aware of it. This early primary lesion is known as chancre. At first the germs are confined to this one area. Later, they invade the blood stream and are carried to all parts of the body, causing a mild rash on the skin that fades in a short time. This is the secondary stage.

The disease may then remain for a long period of time in the latest form where it can be discovered only by a suitable blood test. In the late stage tumours or swellings may appear in various parts of the body, and there may be severe inflammation and degeneration. The nervous system is often affected with disastrous results. Many of these patients may then have to be confined in mental institution and asylums because of syphilis involving the brain and spinal cord. This late syphilitic manifestation, known as general paresis of the insane, results in headache, loss of memory, tremors of the lips, tongue, fingers and hands, and changes in the pupils of the eyes.

Another form of degenerative disease, due to syphilis, is known as "Tabes Dorsalis". In this disease the syphilis germs attack the nerve roots coming from the spinal cord. The patient complains of weakness in the lower extremities, and has difficulty in walking in the dark. He may have to walk with his legs wide apart in order to keep his balance. Lightning pains, sharp and stabbing, may be felt in the back and lower extremities. Severe gastric upsets are common. There may be vomiting and acute abdominal pain lasting for hours or even days. Large ulcers may develop on the toes, heels and soles, and there may be a thickening and splintering of the bone in the joints of the knees. There is often a loss of normal bladder control in the late stage of this disease.

In some cases a large swelling or Gunna may develop under the skin in several places. There may also occur in the inner organs of the body such as the stomach and liver. There may also be a loss of vision due to degeneration of the optic nerves.

Syphilis in babies :

Pregnant women who are suffering from syphilis may pass on the disease to their unborn children. If they do not take proper treatment, the disease may strike the unborn child with great severity, resulting in serious conditions. Soon after birth, the bones

of the child will appear somewhat deformed, the liver and spleen enlarged, and the child may have trouble with his eyes. Often there is considerable damage to the brain and central nervous system, causing the child to be retarded both mentally and physically. His teeth and gums may also be deformed, he may have a saddlenose as well as sores at the corners of his mouth. His teeth may be sharp and pointed, and his eyes scarred.

Gonorrhoea :

Gonorrhoea is another venereal disease which is almost always transmitted by sexual contact. It is caused by a time bean-shaped germ called 'Gonococcus'. In some cases, the disease may also be contracted from contaminated hands, instruments, clothing, contaminated toilet seats, and even bath water. This is particularly true in the case of little girls, all of whom are extremely susceptible to this disease.

Symptoms :

Burning on urination may be the first sign of trouble. There may also be a sense of urgency and frequency of urination and in addition a profuse greenish-yellow discharge in the male. The end of the penis may be red and swollen. In the female the glands around the opening to the vagina may be hot and swollen and there may be a thick yellow discharge during the acute stage. However, many adult women carry the germs for a long period of time without realizing they have the disease, and may readily transmit the germs during sexual intercourse. A chronic discharge is common in both sexes. In young children, particularly little girls, there may be marked redness and swelling of the genital organs with burning on urination. If a mother happens to be infected with gonorrhoea, there is great danger of a new born infant contracting the disease during the process of birth. Unless the infant is properly treated, he may become completely blind in later life.

7 100
6060

Complications :

Not only is there pain and discomfort in both sexes during the acute phase of Gonorrhoea, but many cases of sterility result from this serious infection. In the male the Prostate gland becomes infected and there may be narrowing of the urinary canal, resulting in slow urination. In the female followpia tubes may become closed by an abscess and the inflammation may spread to the whole female pelvis. There may be fever, nausea, vomiting and severe pain in the lower abdomen. Many cases of suspected "appendicitis" are later found to be due to Gonorrhoea. If the germ invades the blood stream there may be inflammation in the larger joints, such as the knees, ankles or elbows, as well as inflammation in the eyes.

II

Venereal diseases are an important feature of an industrialised society. Almost all big cities and industrial towns face a heavy incidence of V. D. The institutions of white collared call girls, and professional brothels are the main carriers of these diseases. Economic hardships, mass unemployment and expansion of the means of transportation have enhanced the mobility of men. Large-scale migration of people from their native places, to the places of work and employment have led to the forced separation of family life. This factor, to some extent, forced the married youth to search for illegal means of sexual gratification. Such people came in contact with brothels and call girls and thereby got the infection.

Sex literature, blue films, cinema and diminishing moral values encourage the youth, both boys and girls, to indulge in illicit sex relations. As free sex has become common in urban areas, the incidence of V. D has increased considerably. Records maintained by the skin and V. D. Departments of the Hospitals reveal that quite a large number of college and university students and service class people suffer from V. D.

Venereal diseases in tribal areas are the result of the socio-economic environment. Bhils and Meenas constitute the highest proportion in the tribal population of Rajasthan. Free sex is prevalent among the tribals, and parents do not mind premarital relations among the young boys and girls. The tribal society does not prohibit even the extra-marital relations.

In Bhil society a girl is considered an asset for the family. This is because of the prevalence of Dapa (bride price). This sometimes results into late marriages. A tribal youth is very fond of sex play, and tries to establish illicit relations with unmarried or married women. This also leads to the increase of chances of V.D.

The developmental activities in tribal areas have opened the vast avenues for non-tribals to undertake economic activities in tribal areas. Forest contractors, miners construction contractors and transporters and urban technical workers are the new class of people who have established close contacts with the tribals. The tribal people live in backwardness and poverty. The size of their land holdings is very small and quite a large number of tribal families do not own lands. Hence the tribal people try to seek jobs as unskilled and semi-skilled workers and thereby they come in contact with outsiders. Tribal girls and young ladies also seek such employment, and live on sites where they feel free from family bondage. Partly motivated by extra gains and partly compelled by poverty, these tribal girls and young ladies indulge in sexual relations with outsiders, and many a times get infection.

National Highway No. 8 passes through tribal populated areas of Udaipur and Dungarpur districts. Truck drivers, cleaners and transport operators, who ply on this route regularly, remain away from their families for days together. These people have encouraged establishment of prostitution centres at certain places along the road side. These centres are the most sensitive pockets from where V. D spreads to the neighbouring areas. Dhariyevad, Kherwara and Jhadol, in Udaipur district, Bichhiwara and Simal-

wara in Dungarpur district, Abu road in Sirohi district, Mahi dam in Banswara district and Jhakham Project in Chittorgarh district are said to be the areas where the incidence of V. D is high among the tribals.

A discussion with the medical officer, posted at Bichhiwara P.H.C. of Dungarpur district, revealed the fact that out of the total patients reporting to the P. H. C., about 4 to 5 percent are V. D cases. Both syphilis and gonorrhoea cases have been identified in the villages of P.H.C. area. About 20 cases of V. D were registered at the P.H.C. during the period May, 1977 to October 1977. These included 11 males and 9 females of 20-24 age group. Out of the total, 19 were Scheduled tribe and one Scheduled caste persons. These patients were the inhabitants of Bokula, Bichhiwara, Nayagaon, Kodiyagurd, Taleyya Nanama Phela, Moden padodi, Sabli Phala, Chhipi, Lambi Dungari, Dhamod, Jhalun, Barothi, Mader, Chundawara and Gundi Kuwan villages. The Medical Officer further informed that villages Thana and Dambola, near Simalwara and Peet, Barothi, Ratampur, Khajuri and Samlaji, near Bichhiwara and Kherwara are some of the centres where the business of immoral traffic is very high. Mostly, tribal girls are the prostitutes who have been procured from the nearby villages. And they are forced to indulge in this business due to poverty and lack of enough support from the family.

The following table shows the number of patients from tribal and non-tribal areas registered at the Skin and V.D. Department of the General Hospital, Udaipur during the period 1974 to 1979 :

Year	Total No. of patients registered during the year	No. of patients from tribal areas		No. of patients suffering from	
		Male	Female	Syphi- lis	Gonorr- hoea.
1974	70	16	Nil	10	6
1975	110	63	2	45	19
1976	112	50	2	30	23
1977	155	45	4	22	27
1978	154	42	12	26	28
1979	177	58	10	35	33

The table shows that the ratio between total patients and the patients from tribal areas varies between 4:1 to 2:1. Further, there has been about 150% increase in the total number of V. D patients registered during the period of 6 years while the number of patients from tribal areas increased by more than 400% during the same period. This indicates a considerable increase in the incidence of the disease in the hinterland of General Hospital Udaipur.

An important feature of venereal diseases is the non-reporting of the cases at the government hospitals, P.H Cs. and dispensaries. This is due to the social stigma attached to the disease. Patients generally go to the quacks and private practitioners and get the treatment in a strictly confidential manner. Such practices aggravate the situation as the sources of infection remains unidentified, and the further spread of infection cannot be checked effectively. Even the patients reporting at the hospitals and dispensaries do not disclose the source of infection

Certain centres of immoral traffic are being run along highways by anti-social elements under the patronage of police personnels and influential people, and no efforts have so far been made to remove them. This deserves special attention at the high level.

Remedial measures :

1. As V.D is a socio-economic evil, a well planned programme of social awakening and economic upliftment of the tribal masses is urgently required.
2. Clinical and pathological facilities for detection of V. D should be provided at the level of dispensaries and P H Cs., and a separate record should be maintained of such cases alongwith the source of infection
3. Sex education should become an essential part of both formal and non-formal education.
4. The source of infection should be detected by taking the patient into confidence and carrier agents be brought to the field of effective treatment.
5. Suppression of immoral Traffic Act should be enforced effectively.

Tuberculosis in Tribals and its Remedial Measures

R. D. Singh

Introduction :

Tuberculosis is an infectious disease but a preventable and curable disease. As a disease tuberculosis is a killer number one in India. There are about 8 to 10 million persons suffering from tuberculosis in our country, out of which 2 million are infective (who excrete the germs of tuberculosis). The occurrence (incidence) of new cases every year is about 4 per thousand and the death rate is 80 to 100 per 1,00,000 population (500,000 every year) with the result that the prevalence is remaining more or less stationary.

The prevalence and the incidence in urban and the rural areas is equal. The causes of the spread in the rural and the remote areas have been the urbanisation, increased means of transportation and the influx of people from the rural areas to the cities for employment. When these people from the rural areas get infected they return to their homes and infect others due to the illiteracy and ignorance.

Epidemiological Aspect :

Tuberculosis is more prevalent in the lower socio-economic group of people. Though the infection with the causative organism is essential it thrives on malnutrition, poverty, over-crowding, unhygienic conditions and illiteracy.

The disease of tuberculosis invades in an epidemic form as the epidemics of other infectious diseases (Cholera or Plague etc) But the epidemic of tuberculosis is slow in onset, long lasting and forms a plateau lasting for 50 to 100 years before becoming endemic, whereas in other infectious diseases the epidemics are quick

to reach the peak and quick to fall reaching the endemicity in a matter of days to months.

The population is known as virgin where tuberculosis doesn't exist and has no inborn resistance to fight the disease. Inborn resistance develops by weeding out phenomenon after the sufferage of generations and the fittest, who have developed the inborn resistances, survive. The Asian population, in this sense, was a virgin population in the beginning of this century.

Tuberculosis in India is in the epidemic form at present and running on the platou. The decline has not started so far. The disease started from the urban areas and remained confined there for pretty long years. The urban population developed inborn resistance but the disease continued to thrive because of the malnutrition, poverty insanitary conditions, overcrowding and industrialisation. The tribals and the rural population remained a virgin population till the modes of transportation increased and the influx of people from the rural areas to the urban areas started for employment. The barrier of contact between the urban and rural population got broken with the increased means of rural and road transportation and the prevalence and the incidence of tuberculosis has become equal in the urban and rural population.

The tribes, to a larger extent, are still a virgin population scattered in the small groups, in the remotest and unapproachable areas. They still behave as a virgin soil for the germs of tuberculosis as they lack the inborn resistance to fight against the infection. The weeding out phenomenon has not fully occurred.

Type of disease amongst the tribals :

The disease is more acute and culminating in the tribals in comparsion to the other urban and rural population. Because of low inborn resistance there is higher incidence of blood borns tuberculosis (meningitis and miliary tuberculosis). They succumb to disease early and when infected in the towns, return to their homes and carry the infection to the local population.

Observations on tribals suffering from pulmonary tuberculosis :

90% of the patients coming for the diagnosis and treatment are far advanced and in an incurable stage.

90% of the patients coming for the medical aid have suffered from the disease for more than 6 to 12 months.

Due to the unawareness of the disease, the onset is only considered from the time of getting bed-ridden.

Though the incidence is only slightly lower in the females than the males, out of the patients coming for treatment 80% are males and only 20% are the females. This disparity may be due to the inferior status of the women, their neglect and the belief in the witchcraft.

The reasons for late awareness and advanced disease :

1. Illiteracy leading to the neglect of the disease till bed ridden.
2. Superstitions (A) " Bhav " and " Mayadi Bukhar "
(B) " Devra pooja "
(C) Belief in " Bhopa " and " Tabeej ".
(D) Belief that some dead person of the family, mother-in-law, father-in-law, sister-in-law or some one else has entered the body as an evil spirit.
3. Postponement of seeking the medical aid during the harvest seasons.
4. Disease taken as asthma and ignoring.
5. Lack of transport facilities may be responsible in some areas.

It was observed that every tribal patient had been to 'Devra', 'Bhopa' or tried some sort of witchcraft for atleast 6 months before seeking the medical aid and everyone had atleast 2 to 4 "Tabeej" tied on the hand or around the neck. The time lag

between the symptoms felt and the seeking of medical aid was minimum 6 months.

The Remeidial Measures :

To destory the seed :

The broad principle of the prevention of tuberculosis is to destroy the seed or make the soil unfavourable for the seed to grow.

It would be ideal but is impossible as 80% of the population gets infected by the age of 20 years (not active diseases) To completely destroy the seed 80% population, who carry the germs (without the active diseases), would have to be sacrificed. It is only possible in a limited way by treating all the infective cases so that they do not infect others.

Make tha soil unfaveurable for the seed :

This can be achieved by improving the socio-economical conditions of the people so that the standard of living improves (better nutrition, hygienic conditions, better working conditions and education) or immunise against tuberculosis i. e. by B. C. G. vaccination.

The Government of India have already launched the tuberculosis control programme for each District. The District T. B. Clinic is the pivot of activity expertise, free diagnostic and treatment facilities (for the full duration of the treatment) and vaccination. For the purpose of prevention and the treatment the District T. B. Clinic is to incorporate all the medical institutions from the District to the sub Centre level and provide all the facilities. Rajasthan State has District T. B. Centre at all 26 District Hendquarters and are participating in the control programme.

The Diagrammatic presentation of the Control programme is given below,

The control programme is a decentralised programme providing the facilities of diagnosis and the treatment free of cost and at the door step of the patient. The facilities are available within a distance of 3 to 5 miles of every village. The preventive vaccination is also door to door and the drug dispensation is monthly to three monthly. The diagnosis at the periphery is by the sputum examination for the germs.

All the programmes, when formulated, are utopic but the the lack of proper implementation and execution leads to the failure. The failures are due to the governmental bottlenecks, circuitous procedures of getting the things done and the unwillingness on the part of the workers. The control programme was launched 15 years back but not much headway has been made. The expert committers are reviewing the programme and the causes of failure.

The remedial measures viz, the prevention and the treatment for the tribals have different dimensions because of the unawareness of the disease, illiteracy and the age long superstitions existing amongst them.

The control programme should have theoretically already reached the door steps of the tribal as well but as already stated the implementation has been half hearted. On interrogation of the tribals attending for the treatment, it is evident that no such facilities exist or they are unaware of it.

The main stress for the remedial measures in tribals should be on.—

(1) Inclusion of all the dispensaries, Primary Health Centres and the sub-centres of the tribal areas in the District Control programme and their active participation which is lacking at present.

(2) B. C. G. vaccination of the tribals on a priority basis.

(3) Education of the tribals on tuberculosis and removal of the misbelief and superstitions.

The District T. B. Centre should organise seminars to educate the Gram Sewaks Panchs, Surpanchs, Village headman, heads of the families and the teachers of the schools of tribal areas on tuberculosis. They, in turn, should give talks in the village chopals and at the community gatherings. Filmshows and talks on tuberculosis should be arranged in the tribal fairs.

The educational stress should be on the symptoms of the disease, seeking of early medical advise, regularity of the treatment, accepting the vaccination and the methods of preventing others from infecting that is spitting in a covered container, use of a cloth while coughing, disposal of sputum, separate utensils and isolation if possible.

Equally important for the tribals is to shed off the inherited superstitions.

District Tuberculosis Control programme

Dist. T. B clinic (Located at the Dist. H. Q)

Facilities—D. T. Officer,
Beds, X 'Ray' sputum
exam., free drugs and
Vaccination teams,
vehicles.

Visit by D. T. O. to all
institutions every month
to provide drugs and
expertisee.

Approximate population of
a Dist. being 10 lakhs.

Tehsils or Blocks—10 on an
average

One Tehsil or Block with
Approximate

populatlon of 1 lakh

Facilities— Hospital or Dispensary
X-ray, sputum examination;
drugs.

PHC	Disp.	Disp.	Disp.
Facilities—	sputum	sputum	sputum
sputum drug.	drugs.	drugs.	drugs.

Sub-centres

1	2	3	4	5	6	7
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Facilities— Drugs.

One block or Tehsil has 12 to 15 medical institutions to look after nearly 1 lakh population. i. e. one institution covers about 8 thousand population.

Diagnosis at the periphery is by sputum exams., whereas free drugs are provided by all the Hospitals, Dispensaries, PHCs and Sub-centres.

Door to door vaccination is done by the team from the Dist T. B. Centre.

Incidence of Tuberculosis among Tribals of Dungarpur District

—D. L. Dashora

Tuberculosis is a major public health problem in our country, not only because of its large incidence, but to its considerable suffering caused to the individual, family and community as a whole, leading to serious social and economic consequences.

Before 1955, it was presumed that tuberculosis is mainly a problem of the cities. Tuberculosis services were only centred in the cities and capitals of the States. National Sample Survey on tuberculosis, 1955 to 1958, revealed that cases of pulmonary tuberculosis are evenly spread in the rural as well as in the urban areas. But 82% of our population resides in rural areas, as such quantum of disease is more there.

On an average district of India, having a population of 1.5 million, it is estimated that there are about 4000 to 5000 infectious cases (i.e. sputum + ve) and about 16000 to 20,000 radiologically active (X-Ray + ve) cases are present at any point of time. Accordingly in Dungarpur district, having a population of only 0.5 million, we expect about 1400 to 1500 sputum positive cases and 5600 to 6800 radiologically active cases at any point of time.

Incidence of Tuberculosis in Tribals :

It is not possible to predict anything regarding incidence of tuberculosis in, terms of tribal population, unless we make a longitudinal prevalence survey. Unfortunately no such survey for tuberculosis has been done in this area before.

In this paper, I have tried to give a picture of incidence of tuberculosis in all new symptomatics attending the outdoor of T. B. Centre Dungarpur during period 1976-78 and position of tribal patients.

Table- I

Position of Tribal Patients

Year	No. of new patients attended	No. of new T. B. patients diagnosed	+ ve by sputum	Sputum by X-Ray + ve
1976	2212	913 (41%)	498 (45%)	495 (55%)
1977	2630	876 (33%)	494 (56%)	382 (44%)
1978	2557	993 (39%)	527 (53%)	466 (47%)
Total	7399	2782 (37%)	1439 (51%)	1343 (49%)

1. Out of 7399 Symptomatics 2782 were diagnosed as suffering from tuberculosis i.e., 37% of all symptomatic were tubercular.
2. Out of 2782 cases diagnosed as tubercular 1439 i.e., 51% were infectious. This indicates the high incidence of bacillary disease in comparison to 30% infectious cases found among symptomatics in an average district of India.

Table- II

Incidence of tribals among diagnosed T. B. patients

Year	Total No. of new T. B. Patients diagnosed	Tribals	Percentage
1976	913	490	49%
1977	876	563	64%
1978	993	559	56%
Total	2782	1570	56%

Out of 2782 new T. B. cases diagnosed 1570 were tribals i. e., 56% of total were tribals. This indicates that the disease is little more prevalent among tribals than non-tribals in this area.

Table- III

Sex-wise incidence among newly diagnosed tribal T. B. patients.

Year	Total No. of tribal T. B patients	Male	Female
1976	490	359 (73%)	131 (27%)
1977	569	427 (74%)	146 (26%)
1978	559	428 (76%)	131 (24%)

This indicates that the incidence of tuberculosis is more among male tribals than females; the ratio being 3 : 1

Table- IV

Age incidence of new tribal T. B. cases diagnosed at the outdoor during the year 1976.

Age group	No of patients	Percentage
5-19	40	8.1%
20-39	228	46.5%
39-55	164	33.4%
55	58	11.8%
Total	490	100%

The most vulnerable age group for tuberculosis is between 20 to 39 years. It is 46% The next, in order, is age group 39 to 55 years being 33.4% i. e., T. B. is more prevalent in age group of 20 to 55 years.

Remedial Measures :

From the above figures we have seen that tuberculosis is not the disease of the individual but it is a disease of the community. For a disease of the community we require community medicine, by this we mean mass approach to change the disease pattern in the community. Looking to the conditions prevailing in our rural area to provide some sort of facility the National Tuberculosis Control Programme of India has evolved District Tuberculosis Programme conceived as a minimal programme suitable for a poor country. District Tuberculosis Programme is already existing in Dungarpur district, the basic principles underlying District Tuberculosis Programme are as under:—

(i) Control of Tuberculosis must form a part of the effort to improve the health of the people. Therefore, T. B. control services must integrate with general health services and function in consonance with other health programme and activities.

(ii) It must be felt-need oriented programme as one of the primary objectives.

(iii) Case finding and treatment techniques must be simplified to the extent that these can be practised by all general practitioners.

(iv) Sputum positive infectors must receive priority both in case finding and treatment.

(v) There should be regular preventive services through effective B. C. G. vaccination.

With the above principles a District T. B. Centre has been established at the headquarters of each district which is responsible for programmes such as planning, training of staff, coordination and supervision of work and ensuring supply of drugs etc. Thus District T. B. Centre becomes pivot of the integrated services and accordingly all general health institutions become Peripheral Centres to the D. T. P. and function according to the pattern of Tuber-

culosis Control Services, extended to rural area without expense of providing separate specialised services.

Tools of District T. B. Control Programme :

The main tools to fight against tuberculosis are as under:—

- (i) Prevention by B. C. G. vaccination.
- (ii) Case finding of infectious cases.
- (iii) Treatment of infectious cases.

(i) Prevention by B. C. G. Vaccination :

B. C. G. vaccination was considered to be an excellent means to protect the susceptible individuals, but it has been recently shown that it plays a rather limited role in the development of epidemilogeal situations. Large scale scientific surveys in Chingleput district of South India failed to show any protective effect of B. C. G. as it has not demonstrated any reduction in the number of Sputum Positive cases emerging out of B. C. G. vaccinated population compared to that in the unvaccinated population in a period of $7\frac{1}{2}$ years observation. But inspite of these observations it still stands that B. C. G. vaccinated children are able to avoid hazards of natural primary infection in the form of primary tuberculosis, and meningeal tuberculosis. As such we are thinking in terms of winding up the mass B. C. G. programme and are taking steps to introgate it with expanded programme of immunization to provide for B. C. G. vaccination of infants as early in life as possible which is likely to be implemented in our district with the implementation of multi-purpose workers scheme in the district.

(ii) Case finding of infectious cases :

Case finding, concerning the District Tuberculosis Programme aims at finding out cases by sputum examination of

symptomatic attending the health institutions. This programme is based on sociological study carried out in Tunkur district by N. T. I. which showed that 95% of the bacteriologically confined T. B. patients are aware of their symptoms and actually 52% are approaching to the existing modern general medical facility. The persons being motivated by the felt need approaches the nearest medical facility for relief of their symptoms which worry them. Thus, their first point of contact was found to be the nearest medical facility. These findings have been further confirmed by several studies from time to time in different areas.

From the above we have reached to the conclusion that if proper diagnostic and treatment facilities are provided to the villagers at least symptom motivated patients who normally come to seek relief of their symptoms could be diagnosed and treated.

The existing health facilities in Dungarpur district are covered by 5 Primary Health Centres and 8 dispensaries. Out of above, all the 5 P. H. C. and 3 dispensaries are having microscopes and are working as diagnostic and treatment centres. The rest are working as mere treatment centres. In future, we hope that the remaining 4 dispensaries, having Medical Officer, will be provided with microscope and they will also start functioning as a diagnostic and treatment centre. For the time being they are advised to refer their cases to the nearest microscopic centre for sputum examination. At the microscope centre the symptomatic approach in search of relief is resorted. The sputum is examined, and if found +ve the cases are prescribed treatment, and if found negative and if symptoms are suggestive of pulmonary tuberculosis the case is referred to District T. B. Centre for X-Ray examination. If at the District Centre, X-Ray examination shows radiologically active disease the patient is provided 1 month treatment. His card is prepared and referred back to P. H. I. with the advice to collect his next month's quota of drugs at the P. H. I. which is nearest to his house. But in this programme the greatest drawback, the

programme is facing, is the cold attitude of P. H. I, Medical Officer towards sputum examination. Although the work load through sputum examination on P. H. I. is not more than 1 sputum examination per day, which is a job of hardly 15 minutes. However, we are trying to remove this deficiency by repeated motivation, and pressure through higher authorities.

Another drawback is referring of sputum negative symptomatics to D. T. C. for X-Ray examination. For the Medical Officer of P.H.I. put the excuse that the patient cannot bear the expenditure of travel from his village to D. T. C. This may be true for some patients, and for them it is suggested that some incentive, equal to the cost of travel, may be given by the Tribal Area Development fund.

(iii) Treatment:- Treatment activity in the District T. B. Centres Programme is decentralised so that the patients get treatment from the Health institution (i e. District T. B. Centre, P. H. C. or Dispensary) nearest to their house. Drugs, selected for rural patients, are those which can be administered by patients themselves at their residence. The patient gets the monthly collection of drugs from the nearest health centre. Good diet, bed rest and isolation from home are not given much importance because basically these are beyond the reach of many poor patients.

Effective treatment for tuberculosis involves a long period of medication with anti T.B. drugs. Domiciliary chemotherapy can be effective only when the patient collects and consumes the drug regularly.

In such a long period of treatment drug default and incomplete treatments are some of the drawbacks of domiciliary chemotherapy. A patient not collecting his quota of drug within 3 days of the due date is called a defaulter. To set it right two kinds of attempts are made. Firstly on the 3rd day after the due date, a letter is posted. After waiting for one week, second action is taken by T. B. Health Visitor, who may visit home if the patient's residence

is at the headquarters of the district town. Else he may post a letter if the patient stays outside. At the peripheral level these actions are to be taken by the touring staff of P. H. C. But this is not usually done.

Suggestions for improvement :

(1) For case finding, the lacunae left in the programme is health education. This task should be done either by public volunteers, or by more number of T. B. health visitors who may be posted at P. H. C. level. They will visit patients houses from time to time and assure regular intake of drugs, and would advise the symptomatics to attend health institution for diagnosis of their disease.

(2) In the National T. B. Control Programme newer drugs like ethambutol and rifampicin have not been given any place because these are very costly and not feasible for treating masses. But for tribal population, provision of costlier drugs should also be there to treat drug resistant cases. For those who cannot purchase these drugs from the market, more funds should be provided.

(3) It would not be out of place if I mention that short term chemotherapy should be given place in the Control Programme of Tuberculosis as it reduces the tediously long periods for which the patient continues his chemotherapy after he feels perfectly well in order to prevent relapses.

Lastly, to sum up I would like to mention that prevalence of disease is little higher in tribals in comparison to non-tribals. Incidence of bacillary disease is $1\frac{1}{2}$ times higher in comparison to an average district of India. No change is suggested in the existing District Tuberculosis Control Programme. The existing programme should be geared up in terms of case finding and defaulter retrieval at P. H. I. level, and should be supplemented with health education programme to create awareness among the public. Newer drugs should be added for the treatment of advanced and drug resistant cases.

Problems of Tuberculosis

—J. P. Jhameria

Intromuction :

Tuberculosis is the most dreaded disease on the globe, and is most difficult disease for control or cure. It has revealed itself as no respector of age, sex or race, and no corner of the world is spared. In the past, infected persons had no hope of recovery and the disease was known by the name "Phthisis" or "Consumption" as the person used to be consumed by the progressive fulminating disease process.

Problem in India :

Prior to the national sample survey 1955-56 in our country, we were in dark regarding the magnitude of the tuberculosis problem. This survey revealed many facts about tuberculosis.

1. Nearly 1.5% of the population, at any one time is suffering from active tuberculosis needing treatment.
2. Out of them, nearly 0.40% are infectious i. e., excreting tuberculosis Bacilli.
3. Prevalence is equal in rural and urban area.
4. 80% of our population is in rural areas where medical services are extremely poor, or not at all there.

The tragedy becomes more intensified when we know that this disease disables its victims and incapacitates them, leaving a long chain of multifarious socio-economic problems which call for a serious attention.

Looking to the problem, its magnitude, tragic implications, tuberculosis deserves a priority in our national health programme. The disease being a community problem, the Government has taken its control on a national level and has laid the foundation of National Tuberculosis Control Programme.

Symptoms

1. There may be no symptoms in early stage and a small lesion may be formed which heals by natural means, without being noticed by a person,

- 2 Cough, with or without expectoration, if for more than 4 weeks duration, the person must be examined for tuberculosis.
- 3 Fever- mild, moderate or hectic.
- 4 Haemoptysis- mild, moderate or severe.
- 5 Breathlessness.
- 6 Marked loss of weight.
- 7 Loss of appetite.
- 8 Apathy- Loss of interest in surrounding work and play.

The main source of infection is a person having pulmonary tuberculosis with lot of tubercle bacilli, discharging in the sputum. Such persons, due to their ignorance, do not know from which disease, they are suffering. And by the time they come to know, they already infect the community. That means they have already spread the infection in most of the susceptible persons in whose contact they come.

Mode of infection :

(a) The most usual method of infection is coughing and sneezing by a tuberculous positive case who discharges millions of bacilli in droplet form, contaminating the surrounding air. whosoever breathes this air gets the infection. It has been reported that infection rate is much higher among the family contacts of an infected tuberculosis case than in general population

(b) Infected sputum i. e; sputum containing lot of tubercle bacilli.

- 1 When a sufferer spits on the ground, the sputum gets dried and with each sweepings of earth or by air currents, the bacilli are pulverized in the atmosphere and becomes a potential source of infection via inhalation of this air.
- 2 Some persons are in habit of wiping their mouths after spitting by hands or body clothes. The bacilli in sputum stick to hands and cloths, and when dried, get into the air and infect the other persons.
- 3 Due to poor socio-economic conditions of many persons, most of the families live in a single room which itself is not adequately ventilated. If the tuberculosis case also lives in the same

room, then other persons contract infection very easily—children and young adults are more susceptible than persons of higher age group.

4. In India it is a custom among ladies to have their meals after their husbands have taken, Moreover some ladies feel privileged in having the remains of food, left by their husbands. If husband happens to be a case of tuberculosis, with infected sputum, then she is likely to have the infection of intestinal tract, by eating remaining infected food. It may well be a cause of abdominal tuberculosis in India.
5. Intestinal tuberculosis has been observed more in female than in male, and the most common reason put forward is that ladies do not like to spit so often and prefer to swallow it. So any tubercle bacilli caught up in nose-pharynx during inhalation or infected sputum from the lungs go to the intestinal canal and cause abdominal tuberculosis.
6. In the days prior to pasturization, abdominal tuberculosis was mainly due to taking of raw milk, specially in western countries. It is not common in India due to customary boiling of milk before use.
7. Lastly the persons handling tuberculosis patients and infected sputum i. e. T. B. Hospital workets and family members looking after a tuberculosis case. get the infection so often due to close contact and improper disposal of the infected sputum as well as from infected clothings of the patients.

Prevention of tuberculosis

It is worthy to recall that "Prevention is better than Cure". In the modern world of scientific advances, tuberculosis is no more an incurable disease. In the light of present day knowledge about prevention and control of tuberculosis, let us discuss how best an individual can help the nation which has launched a control programme., for this dreaded disease.

1 Individual care :

- (a) Early diagnosis of case prevents spread of infection to others.

- (b) Any person having cough, with or without expectoration, must submit himself for thorough check-up in a medical institution.
- (c) Every diagnosed tuberculosis case must have treatment adequately, regularly and for long time (at least 1-2 years) followed by regular check-up as and when asked by the treating physician.

2. Sputum disposal.

1. Patients should avoid spitting anywhere and everywhere.
2. Patient should spit in some containers, may it be of paper and should burn the paper container along with the sputum. If the container is of metal, then it should be boiled in water for at least half-an-hour.
3. Patient's handkerchief and other clothings should be washed and boiled separately.

(e) Patients should not keep infants, children and young adults with them nor should they kiss them.

(f) The house or room in which T. B. patients live should be well ventilated, should have free access to sun rays in all portions of room as scorching heat of sun kills the bacilli.

(g) Floor of house should be wiped with wet cloth soaked in some antiseptic solution (preferably phenol, dettol, lysol etc.) It should never be swept dry as it may disseminate dried up sputum and the bacilli.

Control of tuberculosis :

As the tuberculosis is a community problem, the government has launched a national tuberculosis control programme in which tuberculosis has been dealt with from all corners. For the purpose of discussion we can divide the population in four categories, and each category must have effective and efficient measures for control of tuberculosis —

- (1) Sputum positive cases i.e. open sufferers of pulmonary tuberculosis with tubercle bacilli in the sputum (Dangerous to society).

- (2) Tubercular patients under control i. e. who are sputum negative (not harmful to society.)
- (3) Chronic pulmonary tubercular cases which are sputum positive and are incurable. These are dangerous as well as a liability to the society and nation.
- (4) Remaining general population who are called the susceptibles.

For effective control and prevention, we cannot ignore any category because all of these live intermingled and widely scattered. All the categories should be simultaneously dealt with.

- No. 1- Category cases should be chemically isolated i. e. should be treated with adequate prolonged, chemotherapy and rendered and maintained negative (by sputum examination).
- No. 2- Category cases should have adequate and prolonged chemotherapy along with other form of the treatment of tuberculosis, to prevent them from going in category No.1.
- No. 3- Category poses a great problem Their difficulties being that they are infectious disabled, and isolation is most impracticable, specially in developing and under-developed countries where resources are limited. However, these cases should be isolated as far as practicable.
- No. 4- Category is the largest and of susceptible group. It requires protection by prophylaxis i. e. B. C. G. vaccination. It is the best, cheapest and the only prophylaxis for mass coverage.. It's efficacy has been recently doubted and a large scale scientific trial conducted in chingleput district of Tamil Nadu (South India) has failed to show any protective effect of B. C. G. However, B. C. G vaccinated children are able to avoid the hazards of natural primary infection in the form of primary pulmonary tuberculosis miliary and meningeal tuberculosis. On the recommendations of the W. H. O. expert committee on tuberculosis (1974) B C. G. can be given:—

- (1) Direct B. C. G. vaccination can be given without tuberculin testing. No ill effects have been found:—
 - (a) To all new born infants.

(b) At the time of entering the school.

(c) Population between the age group of 0 to 20 years.

Thus B. C. G. is least expensive, most simple, highly effective to organise and best for mass coverage in a reasonable short time.

(d) Chemoprophylaxis : This is done by administration of drugs, i. e. Isoniazid tablet. It can be used for a short selected group or in some individual. It is not practicable for mass application due to high cost, specially for developing and under-developed countries where the economy is a major factor.

DISCUSSANTS' NOTES

Theme : Incidence of T. B. in Tribal Areas

Session I (10-1-80)

Shri Vijay Verma I. A. S , Commissioner Tribal Area Development in his inaugural address, expressed the views that proper diagnosis facilities are not available at the lower level Medical institutions. Hence, there is an urgent need to spread out the diagnosis Umbrella. He was of the opinion that owing to the paucity of funds, the tribals find it difficult to visit the Medical Institutions regularly. The work-shop may, therefore, think in terms of providing incentives to the patients. He asked all Medical officers to evolve a proforma through which cases of tuberculosis and V. D. may be identified at different level and actual number of patients reporting for check up and treatment. so that efforts may be done to bridge up the gap.

Dr. Padliya presenting his paper highlighted the fact that at present the diagnosis of tuberculosis through sputum tests is done only at Primary health centres where Microscopes are available. He pointed out that T. B. treatment is a self-need oriented programme and the patient must take anti-T B. drugs nearest to his house and should collect the sputum every month without any fail. He suggested, that the tribal patients may be given to and fro fare for collection of drugs and periodical check-ups so that the defaulter rates may be reduced.

Dr. R. D. Singh of S. N. Medical College, Jodhpur in his comprehensive paper expressed the views that about 8 to 10 million people in our country suffer from T. B. and out of

these about 2 million are infective. Dr. Singh was of the opinion that tuberculosis is a socioeconomic disease and more prevalent in the lower Socio-economic group of the people. He asserted the view that the disease is more acute in the tribals in comparison to the other urban and rural population because of low in born resistance.

As regards the remedial measures, Dr. Singh expressed the view that the broad principle in prevention of tuberculosis is to destroy the seed to make soil unfavourable for the seed to grow. Besides, suggesting for an improvement in the Socio-economic conditions and mass B. C. G. vaccination campaign, Dr. Singh also proposed a decentralized control programme for providing the facilities of diagnosis and free treatment at the door step of the patient.

Dr. J. P. Jhamaria of R. N. T. Medical College expressed the view that early diagnosis of the cases may prevent spread of infection to others. He strongly advocated B. C. G. vaccination on a wider scale and effective implementation of the National Tuberculosis Control Programme. He also revealed the fact that out of the 4638 patients admitted at T. B. Sanatorium Bari during the year 1979, 766 (16%) were the tribals.

Dr. D. L. Dashora prepared his paper on the basis of conditions prevalent in Dungarpur district. According to him, the district has about 1400-1500 sputum positive cases and 5600-6800 radiologically active cases of tuberculosis. This reveals a higher incidence of bacillary disease in the district in comparison to the national average of 30% infectious cases. He further observes that out of 2782 new T. B. cases diagnosed during 1976-78, 1570 (56% of the total) were tribals. Further, the disease is more prevalent in the age group 20-25 years.

Paper contributed by Dr. A. P. S. Raghuvanshi of District T. B. Clinic Kota, highlighted the fact that the incidence

of T. B. in Rajasthan is higher than the national average. Its incidence in Kota area is basically due to increasing industrialization and mining activities. About 60% of the patients under treatment in the district are from the age group of below 5 years. According to Dr. Raghuvanshi, about 30-35% of the total patients take their treatment from government Medical institutions and about 25% do not take any treatment.

Mr. S. N. Samdani and associates highlighted the fact that the poor socio-economic conditions of the Tribals is the root cause of a higher incidence of disease among them. The paper was based on the study of T. B. patients taking their treatment at T. B. Hospital, Bari and district T. B. Clinic Banswara, conducted by the Tribal Research Institute.

Summarizing the papers presented, the chairman emphasized the salient features and focussed on three important points—

- 1) Publicity and Health Education Programme.
- 2) Treatment facilities, existing set up and the improvement required in it.

3) Reduction of defaulter rate through motivation. He further observed that the problem has two important aspects—

- 1) Response improvement aspect, and
- 2) System improvement aspect.

Under response improvement aspect efforts may be done in the following manner.

1) Fiscal aid to the patients at the rate of Rs. 10 per month for taking the treatment regularly. This would require a sum of Rs. 4 lakh per year, for all the districts of Tribal Sub-plan Area.

- 2) Wide publicity through film shows and publication

of literature about the disease in the ' vagri ' dialect.

3) Supply of free medicines to the tribal patients.

4) Travelling expenses of two persons per tribal T. B. patient should be reimbursed whenever a patient is required to come to the District T. B. Clinic for X-Ray and Check up.

Dr. R. S Mann expressed his doubt whether direct motivation in the form of Rs. 10:00 per month would attract the tribal patients to take the treatment regularly. He was of the opinion, that the leadership hierarchy of the tribal areas should also be involved by motivation in response improvement programme to motivate the tribals for taking the treatment regularly.

Under system improvement aspect, the commissioner expressed his opinion that all P. H. Cs, and dispensaries located in the tribal area should function as diagnosis centres and these should be equipped with microscopes. It was pointed out by the C.M. & H.Os. of Dungarpur, Udaipur, Banswara and Chittorgarh that all P. H. Cs. are equipped with microscopes but 6 dispensaries in Dungarpur district 14 in Udaipur 10 in Banswara, 1 in Sirohi (Abu Road) and 2 in Chittorgarh (Tribal Area) districts do not have microscopes A view was arrived at to provide facilities of microscopes to all dispensaries and C. M, & H. Os. of the respective districts should look in to this matter on priority basis.

Theme : Incidence of V. D. Among Tribals

SESSION II (11-1-80)

The second day session started with presentation of papers on Incidence of Venereal Diseases Amongst Tribals. Shri M. K. Vyas, in his papers expressed the view that venereal disease are found in both the sexes. In India the prevalence rate of V. D. is very high and it can be placed next to malaria and tuberculosis.

According to Vyas a great degree of laxity in sex prevails among the tribals as premarital and extra marital sex relations are tolerated by the society. The increase in Population movement is another factor in the spread of V. D.

Dr. N. K. Bansal in his paper, defined venereal disease as sexually transmitted diseases which are a continuous menace to the community health, because of the social stigma attached to V. D. the cases usually remain hidden and do not attend hospitals for treatment. It is estimated that there are about 150 million cases of syphilis in the World today. Nearly 5% of our country's population is suffering from syphilis and nearly 8% of the women are symptomatic carriers of gonorrhoea. Studies have revealed that 80 to 90% T. D. cases contracted the disease from prostitution, Dr. Bansal states that out of the total reported V. D. cases (180) in the Skin and V. D. Department of General Hospital, Udaipur, 12 were from the tribal areas. The incidence of S. T. D is higher in age group of 20 to 35 years.

Dr. Malvi's paper on the incidence of S. T. D. in Dungarpur district reveals that about 2.2% of the total out door patients in the General Hospital, Dungarpur are V. D. cases. A good number of V. D. cases take treatment from quacks and private practioners. The average prevalence of the disease in the district is 2.3% of the total population and the majority of these patients are from lower socio-economic group.

About 52 cases of V. D. were registered at S P. H. Cs. of the district during a period of 20 days. The male/female ratio was estimated to be 3 : 1 Majority of the cases were in age groups 17-25 and 30-35 years. About 50% of the total cases had an annual income below Rs. 2000/- only 10 cases received from the local source. Out of 52 cases, 35 are tribals which shows a higher incidence of the disease among the tribals.

Dr. N. N. Vyas's paper on the Cultural Background of Venereal Diseases in Tribal Area maintains that, there are marked differences in the frequency and nature of V.D. in various cultures yet no methodology has been devised to quantify these differences in a statistically valid manner. Dr. Vyas emphasized that the seeds of the disease do not lie in the individual but it can be located in the context of the family and culture.

Dr. Vyas's study of a group of road side tribal labourers reveals that a majority of the labourers were girls and of young age groups. Many of them felt depressed and disillusioned by their mode of life and in order to satisfy their allurments they prefer to work in labour camps which keep them away from their homes, in their struggle to adapt new aspects of outside world they develop venereal diseases out of character disorder. Highway traffic encourages immoral traffic activities and lead to communication of Venereal infections.

Pointing out the remedial measures, Dr. B. K. Lavania suggests a skilful handling of the patients by doctors and maintenance of a separate register of V. D. patients at P. H. Cs. Besides, provisions should be made for sex health education in local dialect, establishment of a model V. D. Clinic in tribal areas and involvement of Social workers in prevention and control of the disease.

The paper presented by Mr. S. N. Samdani support the view that Venereal disease are an important characteristic of the industrialised and urbanised societies. Hospital records of General Hospital Udaipur reveals that quite a large number of College and University students and service class people suffer from V. D. An analysis of the records maintained at P. H. C. Bichhiwara in Dungarpur district reveals that 20 cases of V. D. among tribals were reported between May to October 1977. These included 11 males and 9 females, indicating equal incidence

among both the sexes. These tribal patients were from the nearby villages. A few villages and project areas can be identified as the sensitive areas where incidence of V. D. may appear to be higher. An analysis of the record maintained at General Hospital, Udaipur reveals that the ratio between total patients and patients from tribal areas vary between 4 : 1 to 2 : 1.

Shri Vijay Verma, Chairman of the Session observed that efforts are to be made under case finding activities and laboratory technicians should be posted at each P. H. C. in tribal areas. C.M. & H.O. Dungarpur expressed his opinion that every P H C. should have atleast one lady doctor and all A. N. Ms. should be given a few days orientation in venereal diseases. Dr. Bansal was of the opinion that investigations on the basis of slides can be taken up at the P.H.C. level and V. S. workers should be posted at some of the P. H. Cs. where the incidence of the diseases is higher. The Commissioner expressed the view that lady doctors posted at P.H.Cs. should visit Sub-centres atleast once in a month on certain fixed days so that lady patient may be motivated to turn up to the sub-centres and dispensaries. Dr. Bansal informed the delegates that drugs for V. D. may be procured from Director, Medical and Health, and the same may be provided free of cost to the tribal patients.

—S. N. Samdani

MAJOR RECOMMENDATIONS

Tuberculosis :

- 1 Malaria technician posted at each P. H. C. should examine atleast one slide per day for sputum tests. Monitoring of the progress in this field should be done through C. M & H. Os. A programme in this respect will be despatched to all P. H. Cs. and dispensaries.
 - 2 District T. B. Clinic should pay actual travelling expenses to the tribal patient and his escort if and when the patient is required to come to the district clinic for X-ray and check up.
 - i Tribal patients procuring their medicines every month should be paid a incentive amount of Rs. 10/- per month.
 - ii Films on tuberculosis should be exhibited in the tribal areas and mobile exhibition van of Public Relation Department may be used for this purpose. Tribal Research Institute will prepare literature on T. B in Vagri dialect for free distribution in tribal areas.
 - iii All District T. B. Offices should issue instructions to dispensaries to start treatment of the patients by preparing slips and District T. B. Clinics should issue Index Cards on the basis of these slips. District T. B. Officer should see that these instructions are followed strictly.
- 0-20 age group population needs to be covered by B. C. G. innoculation. At present this work is being done through a team of 6 persons in each district with 22 working days in a month. Monitoring should be done in respect of the targets fixed under B. C. G. innoculation programme. i. e. registration

of 150 persons and innoculation of 60 persons every day by each worker of the team.

Venereal Disease :

i Block Extension Educator (Family Planning and Lady Health visitor) should be given a short term orientation in V. D. so that they may assist in V. D. work also in tribal areas.

ii Like T. B. patients a separate register for V. D. patients should be maintained and V. D. cards be prepared. These registers and cards, as per proforma, should be supplied in tribal areas.

iii Additional Director (Malaria) can issue revised instructions to Malaria technicians to examine at least one slide of T. B. and V. D. every day.

iv Voluntary Agencies working in tribal areas should be involved in Health Education programme.

v Monitoring of V. D. in tribal area should be done through the Department of Skin & V. D., R. N. T. Medical College, Udaipur.

LIST OF THE PARTICIPANTS

- 1- Shri Vijay Verma, I.A.S. Commissioner, Tribal Area Development Department, Rajasthan Udaipur.
- 2- Shri G. H. Narwani, Additional Commissioner, T. A. D. Department, Udaipur.
- 3- Dr. B. K. Lavania, Associate Prof. in Sociology, University of Udaipur.
- 4- Dr. R. D. Singh, Professor of Chest Diseases, S. N. College, Jodhpur.
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